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More Than the Sum of Its Parts:

A Multiple Case Study on the Implementation of RTI in Five Sites

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by

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More Than the Sum of Its Parts:

A Multiple Case Study on the Implementation of RTI in Five Sites

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Using a multiple-gating procedure, 5 research sites (3 elementary and 2 middle schools) were identified as implementing a Response to Intervention (RTI) framework. This study uses a multiple case study design to describe the RTI implementation in reading at these 5sites. Findings suggest that the sites studied are utilizing a hybrid model (a combination of standard treatment protocol and problem solving models) for developing and assigning reading interventions. The five sites implemented critical components of RTI (universal screening, progress monitoring, scientifically-based core curriculum, and a multi-tiered system of interventions) similarly, despite differences in campus-level variables. However, no site implemented a process for assessing the fidelity of implementation of the RTI framework. They also followed state and/or district guidelines on the use of RTI data in special education eligibility decisions.

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CHAPTER 1

INTRODUCTION

In 2004, the United States Congress reauthorized the Individuals with Disabilities Education Act (IDEA) under the name the Individuals with Disabilities Education Improvement Act (IDEIA, 2004). While the passage of legislation as broad and comprehensive as IDEIA (2004) would definitely garner national awareness in terms of its implications for all areas of special education, one small passage contained on the 118th page of the law became a focal point of attention. The passage reads:

> (A) In general.--Notwithstanding section 607(b),
> When determining whether a child has a specific learning disability as defined in section 602, a Local Educational Agency shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability in oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematical calculation, or mathematical reasoning.
> (B) Additional authority. --In determining whether a child has a specific learning disability, a Local Educational Agency may use a process that determines if the child responds to scientific, research-based intervention as a part of the evaluation procedures described in paragraphs (2) and (3) (IDEIA, 2004).

Prior to the reauthorization of IDEIA in 2004, states could require Local Education Agencies (LEAs) to use aptitude-achievement discrepancies to identify students as having specific learning disabilities (LDs). Since the passage of IDEIA (2004), states are no longer permitted to require that LEAs use a discrepancy formula within the identification process; instead, states must allow LEAs the option of considering a student's response to scientifically-based instruction to identify a student as having LD. States, LEAs, and schools commonly operationalize this second option as Response to Intervention (RTI) even though RTI is not specifically mentioned in the law (Johnson et al., 2006).

The concept of RTI, while significant in IDEIA (2004), is not a relatively new idea. RTI is not a specific model, curriculum, or program; rather, it should be viewed as an approach based on the public health prevention model with primary, secondary, and tertiary interventions responsive to students' needs (Vaughn, Wanzek, & Fletcher, 2007). For the purposes of this study, RTI is defined as a systematic way of providing increasingly intensive educational interventions, measuring student progress, and using the resulting data to make important educational decisions. The purpose of the RTI framework is two-fold: the prevention of future educational difficulties and the remediation of existing ones. In addition, some states and/or districts may use RTI as a data source for the identification of students with learning disabilities.

Rationale for Change

In 1963, Samuel Kirk first introduced the term " learning disability" when addressing the Conference on the Exploration into Problems of Perceptually Handicapped Children (Hallahan & Mock, 2003). Parents in the audience adopted the term and established the organization that is now known as the Learning Disabilities Association of America. Barbara Bateman, a former student of Kirk's, "inextricably tied" the notion of an aptitude-achievement discrepancy with learning disabilities two years later (Hallahan & Mock, 2003, pg. 22) when she defined learning disabilities as:

> An educationally significant discrepancy between [a child's] estimated potential and actual levels of performance related to basic disorders in the learning process, which may or may not be accompanied by demonstrable central nervous system dysfunction, and which are not secondary to generalized mental retardation, educational or cultural deprivation, severed emotional disturbance, or sensory loss (Bateman, 1965, p. 220).

In other words, students with learning disabilities demonstrate "unexpected underachievement" in one or more academic subject (Fletcher, Morris, & Lyon, 2003). These students achieve less than what would be expected given their particular aptitudes, and this underachievement is not due to any other factor, such as hearing or visual impairments, poor instruction, chronic absences from school, etc.

This definition was soon operationalized through the use of the aptitude-achievement discrepancy formula to identify students with learning disabilities as mandated in Public Law 94-142, commonly known as IDEA (1975). Typically, a student's aptitude would be measured with an intelligence test to determine a student's intelligence quotient or IQ. General achievement could be gauged by using any number of standardized achievement measures, such as the Woodcock-Johnson III Achievement Battery (Woodcock, McGrew, & Mather, 2001). A student could then be identified as having a learning disability if a discrepancy of a certain predetermined quantity was found between the student's IQ score and his/her achievement score. In other words, if a student's achievement was significantly below what could be expected given his/her intelligence, he/she was judged to have a learning disability.

However, the use of the aptitude-achievement discrepancy to identify students as having learning disabilities came under scrutiny for several reasons. First, the reliability of the discrepancy was called into question as the myriad test instruments measure aptitude and achievement differently (Shepard, Smith, & Vojir, 1983). Therefore, a student conceivably could gain or lose a learning disability simply based on the measures used to assess his/her discrepancy. Similarly, state and local education agencies have differed in how they have utilized the discrepancy formula. These differences in definitions of learning disability (e.g.,

what measures can be used or what constitutes sizeable discrepancy) has led to varied prevalence rates of learning disabilities from state to state (Scruggs & Mastropieri, 2002). State prevalence rates of learning disabilities vary from 2% to 7% (Coutinho, 1995). Therefore, it is conceivable that a student who would be identified as having a learning disability in one state may not be identified as requiring a special education in another state. This variation in eligibility may also occur at the district level.

In addition, the use of the discrepancy model may lead to unanticipated social results, namely the relative inability of young children to score a large enough discrepancy to be found eligible for special education and the over-identification of males and of students from culturally and linguistically diverse backgrounds in special education. The difficulties students in the primary grades face in obtaining significant enough discrepancies has led some to refer to the discrepancy model as the "wait-to-fail" model as students must continue to struggle for years in order to score large enough discrepancies so they can access necessary services through special education (Fuchs et al., 2003).

Traditional intelligence tests have been found to be culturally biased instruments, with students from culturally and linguistically diverse backgrounds consistently scoring below white students (Jencks & Phillips, 1998). With the reliance on intelligence testing in the discrepancy model, students from culturally and linguistically diverse backgrounds are being overrepresented in special education (Donovan & Cross, 2002). To eliminate such over-representation of certain student groups, the National Research Council Panel on Minority Overrepresentation has advocated for less reliance on biased measures, such as intelligence tests, in eligibility decisions (Donovan & Cross, 2002).

Two expert panels in special education convened to examine several issues surrounding special education in general and the field of learning disabilities specifically. The National Summit of Learning Disabilities (Bradley, Danielson, & Hallahan, 2002) and the President's Commission on Excellence in Special Education (U.S. Department of Education, 2002) concurred that the aptitude-achievement discrepancy is not an adequate method to identify students with learning disabilities. Both panels of experts agreed that RTI was the most promising practice to identify students with learning disabilities.

Statement of Problem

Although many experts and practitioners in special education consider RTI a promising practice for preventing and identifying learning disabilities in reading, ambiguity still exists regarding how RTI should be operationalized. Part of the ambiguity regarding the implementation of RTI can be traced to IDEIA. The language in IDEIA regarding RTI is "quite limited and vague" (Jimerson, Burns, & VanDerHeyden, 2007, p. 5), leaving many states, districts, and schools with unanswered questions regarding how to pursue implementation of this program.

The current dearth of research on RTI contributes to the lack of certainty that surrounds it. The National Research Center on Learning Disabilities (NRCLD) definitively identified several core components of RTI, such as high-quality, scientifically-based core curriculums, universal screening, progress monitoring, a multi-tiered system of increasingly intensive interventions, and implementation integrity (Mellard, 2004). Yet questions regarding the efficacy of RTI and how to use RTI to identify students with learning disabilities remain (e.g., Burns & Ysseldyke, 2005). Indeed, vagueness still exists regarding what exactly RTI stands for: Response to Intervention (e.g., Batsche et al., 2006) or

Responsiveness-to-Intervention (e.g., Fuchs et al., 2003). While the difference between the two names is a seemingly minor distinction, it represents the uncertainty that surrounds RTI in the research field.

For example, RTI is typically described as having two models. One is primarily based on the school psychology practice related to problem solving, and the other utilizes the research of effective instructional practices, often referred to as the standardized treatment approach (Fuchs et al., 2003). In the problem-solving model, the school typically uses a team approach to determine an appropriate intervention for a particular student. When the data suggest a student is in need of more intense interventions than are currently provided, the team convenes to examine the student's assessment data and reach an agreement regarding an appropriate, targeted intervention (Batsche et al., 2006). In the standardized treatment model, all students in need of more intense instructional interventions receive the same type of intervention, which is typically a highly structured program that offers direct and explicit instruction (Batsche et al., 2006). However, little is known regarding which of the two models (if either) are being implemented in schools. In fact, Christ and colleagues (2005) argue that the distinctions between the two models may be artificial in terms of implementation of RTI at the school level.

A consensus exists that there is a large gap between research and practice for issues surrounding RTI implementation. This gap is cause for concern because states, districts, and schools are progressing with the development and implementation of RTI models and practices with little research or evaluation data as guidance. Case studies of sites implementing RTI provide one source of data that is readily available for collection and reporting, yet currently underrepresented in the research literature. Descriptive case studies

represent an important source of information for schools to be able to answer such questions as "how" and "why" RTI can be implemented effectively (Yin, 2003). With scant research describing how sites are implementing RTI, other schools are left scrambling to answer these questions with little or no guidance.

This is not to say that research does not exist regarding the implementation of RTI; indeed, there is a broad range of literature available describing various components of RTI. These data sources are typically research studies conducted within school contexts that include multiple components (e.g., Vaughn, Linan-Thompson, & Hickman-Davis, 2007; Vellutino & Scanlon, 2006). Such studies, while extremely valuable in answering questions regarding the efficacy of certain components of RTI, do not always provide enough information to guide schools in implementation. For example, Burns and colleagues (2005) conducted a meta-analytic review of four large-scale RTI models and found that all of the models had strong effects on school outcomes; yet this particular meta-analysis does not contain enough information regarding how the various models are implemented for a school to either begin or refine its implementation of RTI in accordance with research-proven models.

Other sources of information regarding RTI implementation at the school level can be found in descriptions (e.g., Ikeda et al., 2007) and evaluations (e.g., Peterson et al., 2007), but only a handful of studies published in peer-reviewed journals in the last two decades can be categorized as true case studies (e.g., Ervin et al., 2007; Ikeda et al., 1996; Marston et al., 2003, McIntosh, Graves, & Gersten, 2007). One of the most consistent comments about RTI among researchers and other key stakeholders is that while there may be considerable research on each of the components of RTI, there is very limited research on the

implementation of the components as part of a model. While schools across the country are beginning to implement RTI, little is known regarding these implementations.

This study adds to the literature base regarding RTI implementation at the school level. The qualitative, multiple case study design was utilized to purposefully select sites that represent a broad range of diverse school features. It also collects and analyzes multiple sources of data and develops narrative site reports that highlight how the selected sites implement RTI. This research design allows questions to be asked regarding the "how's" and "why's" of RTI implementation (Yin, 2003) and has three distinct advantages when compared to other case studies.

First, existing case studies demonstrate considerable dependence; all of the case studies were conducted by someone directly involved and with a stake in the particular model of implementation. For example, one case study (Marston et al., 2003) regarding the implementation of RTI in the Minneapolis Public Schools was conducted by four employees of the school system. This study, on the other hand, provides an independent examination of five RTI implementation sites to which the researcher has no personal ties and, therefore, no stake in the outcomes of the study.

Second, this study was conducted with a high degree of rigor (as outlined in the methods section) and has high reliability and validity by using established protocols for collecting data, triangulating data, and using member checks by allowing the implementation sites to review the analysis. This rigor, combined with the researcher's independence, should increase confidence in the findings.

Third, the researcher was unable to locate a study utilizing a multi-case descriptive design on RTI implementation, as existing case studies have focused on one site at a time. Similar to

experimental research, case studies are strengthened through replication (Yin, 2003). One case study was analyzed first; then the other studies were analyzed to determine if the findings from the first study were replicated across sites.

Statement of Purpose

The purpose of this study is to use a multiple case study design to describe five sites' implementations of RTI models addressing reading.

Research Questions

The following research questions guided this study:

1. How are the identified sites (n=5) implementing Response to Intervention in terms of the process used to select interventions: problem solving, standard treatment protocol, or a hybrid model?
2. How do the identified sites implement recommended components of high-quality Response to Intervention models in reading: universal screening, progress monitoring, a multi-tiered system of increasingly intensive interventions, scientifically-based core curriculums, and fidelity of implementation checks?
3. How are selected sites using Response to Intervention processes and/or data sources when identifying students with learning disabilities?

CHAPTER 2

REVIEW OF LITERATURE

In this chapter, the historical background of RTI will be discussed. In addition, a conceptual framework of RTI will be presented. Common models and the critical components of RTI will be summarized as well to provide a background and rationale for the hypotheses and data collection procedures of this study.

Background of RTI

There are two significant factors that influenced the inclusion of RTI in the recent reauthorization of IDEIA: (1) the ongoing problem of defining and identifying learning disabilities, and (2) developing and implementing prevention models that would reduce the prevalence of learning difficulties, particularly in reading. The fundamental goal of RTI is to simultaneously develop and implement an approach to early screening and intervention by layering increasingly intensive interventions while determining (based on students' responses to these interventions) whether students may not be learning for reasons other than lack of adequate instruction, perhaps because of a learning disability (LD; see for review, Bradley, Danielson, & Hallahan, 2002).

Starting from 1973, when Kirk and colleagues rather arbitrarily established criteria for identification of LD with a discrepancy between achievement and aptitude as a cornerstone, discussion and disagreement has continued among researchers and practitioners. For example, as part of a large-scale panel convened by the National Research Council to investigate the disproportionate representation of culturally and linguistically diverse students in special education, Heller, Holtzman, and Messick (1982) advocated for a system of measuring a student's response to high-quality, effective instruction during the special

education eligibility process as a potential way to address any potential bias in intelligence testing against students from diverse backgrounds. Three criteria were to be used to determine the validity of special education classification: (1). Did the student receive instruction within the general education setting of such a quality that it is reasonable to assume that the student would adequately learn? (2). Does the special education program offer instruction of such a quality that it justifies the labeling of a student? and, (3). Is the assessment for classification "accurate and meaningful"? (Vaughn & Fuchs, 2003, p. 138).

Despite the recommendations of Heller and colleagues (1982), the use of RTI for identifying students with LD proceeded to lay dormant for many years. Discussion surrounding RTI grew as IDEA was reviewed for reauthorization in 2004. Several consensus groups examining different topics (LD, the representation of minority students in special education, and special education in its entirety) were convened to provide more information for legislators regarding IDEA, and all addressed the use of RTI in learning disability identification.

One of these groups was the National Summit on Learning Disabilities, convened by the Office of Special Education Programs in 2001. This committee of national experts on learning disabilities was able to reach a consensus on eight main principles, all of which related to the identification of LD and the eventual use of RTI as a means to facilitate more appropriate identification (Bradley, Danielson, & Hallahan, 2002). Similarly, another group, the National Research Council Panel on Minority Representation in Special Education, recommended that:

> federal guidelines for special education eligibility be changed in order to encourage better integrated general and special education services. We propose that eligibility ensues when students exhibit large differences from typical levels of performance in one or more domain(s) and with evidence of

> insufficient response to high-quality interventions (National Research Council, 2002, p. 362).

More specifically, the National Research Council (2002) outlined a tiered system of intervention and treatment. Under this system, all students would be screened in late kindergarten or early first grade on predictive indicators in reading (e.g., phonemic segmentation). Students identified at risk would receive a supplemental intervention. If progress monitoring data showed that a student failed to respond to the supplemental intervention, the student would receive a more intensive intervention from another teacher. If a student continued to fail, the student would be referred to special education.

The President's Commission on Excellence in Special Education (U.S. Department of Education, 2002) advocated for states, districts, and schools to focus their resources on student outcomes and to concentrate less on compliance and process. In addition, the commission argued that the current special education referral model was "antiquated" in that it "wait[ed] for a child to fail" (p. 7). An RTI model of prevention and remediation was recommended.

However, it is important to note that while RTI has garnered considerable support among researchers and practitioners, there is little consensus in the field regarding its use. Tensions still exist regarding several core issues including the construct of LD under an RTI model (e.g., Fuchs & Deshler, 2007; Kavale, Holdnack, & Mostert, 2005), the lack of empirical evidence for the use of RTI in content and grade levels beyond reading in grades kindergarten through three (e.g., Vaughn et al., 2008) and the use of the RTI model for special education eligibility decisions (e.g., Kavale et al., 2005).

With regard to the construct of LD, disability typically has been perceived as something intrinsic to an individual; that is, it either resides within an individual or it does

not (Hammill, 1990). In an RTI model, much of the initial focus is on the instructional environment rather than on the individual. To identify a student as having LD without examining cognitive processes of the student is troubling to some (e.g., Hale et al, 2006). However, by manipulating environmental factors including duration, group size, and intensity of instruction, RTI is able to verify that a student's academic and/or behavior difficulties are not the result of the environment, but rather are intrinsic to the student (Vaughn & Fuchs, 2003); therefore, the use of RTI will not lead to the disappearance of LD as a construct.

Another concern that has led to considerable tension in the field is the applicability of the framework of RTI to middle and high schools and to other content areas such as science and social studies. For example, Fuchs and Deshler (2007) are unsure if a three-tier model can be extrapolated to middle and high schools with few modifications or if a "very different model" is necessary for struggling middle and high school students (p. 134).

Regarding the determination of when a student is a "non-responder" or "minimal responder" and therefore should be either classified as having a learning disability or referred to the special education eligibility process, Fuchs and Deshler (2007) identified five distinct methods of analysis that may be used in conjunction to determine if a student's response is adequate: median split (Vellutino et al., 1996), normalization (Torgesen et al., 2001), final benchmark (Good, Simmons, & Kame'enui, 2001), dual discrepancy (Fuchs & Fuchs, 1998), and slope discrepancy (Fuchs, Fuchs, & Compton, 2004). While it is beyond the scope of this study to describe and discuss the empirical background of each method, it is important to note that it remains to be determined if these various methods consistently identify the same subgroup of students as having LD. While there are several promising

methods for determining non-responsiveness [as outlined by Fuchs and Deshler (2007)], no consensus exists in the field regarding the preferred method.

The issues discussed above represent a fraction of the "potential pitfalls" of RTI (Vaughn & Fuchs, 2003, p. 137). Despite the minority view that these issues are problematic to the extent that RTI should not be used in the identification of LD, many researchers and practitioners feel RTI should be implemented as a framework for the prevention and remediation of academic and behavior difficulties.

For a more detailed background of RTI, see Appendix A.

Conceptual Framework of RTI

RTI is a conceptual framework that extends work previously designed to promote prevention in public health and applies a similar model to prevention in preventing early reading difficulties (Vaughn et al., 2007). It is important to note that various models of RTI exist; however, all of these models are based on the same conceptual framework. RTI can be defined as a systematic way of providing increasingly intensive educational interventions, measuring student progress, and using resulting data to make important educational decisions (Batsche et al., 2006). The purpose of the RTI framework is two-fold: the prevention of future educational difficulties and the remediation of existing ones. In addition, some states and/or districts may use RTI as a data source for the identification of students with LD. RTI provides states, districts, and/or schools with a framework for allocating instructional services and resources in response to the needs of students.

In the public health model, the prevention of future health problems is the goal (Vaughn et al., 2007). This goal is accomplished through three layers of prevention: a. primary, b. secondary, and c. tertiary. The aim of providing three increasingly intensive

interventions is to offer patients the level of assistance necessary to maintain or restore a general level of well-being (Vaughn et al., 2007). Implicit in this model of prevention is the idea that the needs of most of the population should be met solely through primary prevention, which is the least intense (and presumably most cost-efficient) level of services.

For example, in terms of basic cardiac care, the majority of the general population's needs related to cardiac health can be met by the most basic of medical services – regular physical examinations and recommendations regarding appropriate diet and exercise. For some people, however, this level of care is not intense enough to meet their needs; these people may need certain heart medicine or other treatments to help maintain their overall level of health. These secondary interventions are more intense for those people who demonstrate that the primary level of care is not sufficient. A smaller percentage of the population may need more than medicine to treat their cardiac problems; they may need some type of surgical intervention, such as bypass or even transplant surgery. These surgical interventions could be considered as tertiary prevention/intervention.

Only those patients that require surgical interventions are offered this level of support. Those people who are able to maintain a basic level of cardiac health through diet and exercise are not candidates for this level of prevention/intervention, thereby allowing the heart surgeons to dedicate the majority of their time to the cases that require the most intense level of intervention. Similarly, insurance companies do not cover expensive surgical procedures for those patients who could maintain cardiac health with medicine, as this practice would not be cost-efficient. It would be as unthinkable to offer everyone a heart bypass surgery when the majority of the population do not need that intense an intervention

and equally unthinkable to deny the surgery to a patient that desperately required it in favor of telling the patient to adopt a more heart-healthy diet.

RTI is the application of this tiered prevention model to preventing academic difficulties and determining minimal response to intervention as a data source for identifying students as learning disabled. In the school setting, all students receive a primary level of prevention through the teaching of a research-based core curriculum in the general education classroom. In order to prevent reading difficulties, the primary level of prevention may include a school-wide, scientifically based research program that establishes instructional routines and practices associated with improved outcomes in reading (Foorman, 2007). If the primary level of prevention (commonly referred to as Tier I) is effective, the majority of students will be able to maintain appropriate progress in reading and meet academic benchmarks with little to no additional support.

However, it is likely that a percentage of students will require a more intense level of intervention as a secondary intervention. This is often labeled Tier II. In Tier II, those students requiring additional support will receive extra instruction in addition to the instruction that they receive in Tier I. Tier II academic instruction is typically delivered in small groups. Usually, Tier II interventions are not categorized as special education; rather, they occur within the general education setting. It is important to note that Tier II is supplementary to Tier I; it does not replace Tier I instruction for those students who require more intense interventions. These "extra boosts" of instruction conceivably support students in reaching academic benchmarks and prevent the students from developing more serious difficulties.

A smaller percentage of students may require an even more intense level of intervention that that offered in Tier II. The tertiary level of prevention, or Tier III, provides more intense support for these students. Academic instruction may be intensified in terms of content, group size, and duration of instruction (Stecker, 2007). Students in Tier III are not able to progress in Tier I and Tier II without additional support. In the earlier medical analogy, these are the students who require surgery – a more specialized intervention.

Models of RTI

Many models of RTI exist in the research literature (e.g., O'Connor, Fulmer, & Harty, 2005; VanDerHeyden, Witt, & Gilberston, 2007) and in the field (e.g., Ikeda et al., 2007; Marston et al, 2003). These models differ in a multitude of ways, including the number of tiers of interventions provided in general education and how the interventions are developed. RTI is commonly conceptualized as consisting of three tiers of increasingly intense interventions (Batsche et al., 2006). Occasionally, a school's RTI implementation model contains a greater or lesser number of tiers, but the specific number of tiers may not be critical as long as the tiers provide increasingly intensive interventions to a smaller proportion of students. However, the process used by schools to develop interventions is important in terms of categorizing the particular model a school employs. Typically, the process that schools use to develop interventions can be categorized into three broad classes: the problem-solving process; standard treatment protocol; and a hybrid, combination model.

Problem-solving model. The term problem-solving is often used to describe a myriad of processes (Fuchs & Deshler, 2007). For the purposes of this study, the problem-solving method is defined as a four-stage process (problem identification, problem analysis, plan implementation, and plan evaluation) that "assumes that no given intervention will be

effective for all students, [and] is sensitive to individual student differences" [National Association of State Directors of Special Education (NASDSE), 2007, p. 7]. Derived from Bergan's behavioral consultation model (Bergan, 1977), each stage of the problem-solving process is "designed to answer an important question" about a particular student, such as "what is the best solution hypothesis?" and "is the solution attempt progressing as designed?" (Marston, Lau, & Muyskens, 2007, p. 279). The problem-solving approach typically involves the customization of an intervention to match a particular student's needs; however, it may result in the use of a standardized intervention. Marston and colleagues (2007) examined the use of the problem-solving process within RTI in the Minneapolis Public Schools over a 12-year period. In this model, a student identified as struggling cycles through the problem solving process at least two times; first, the classroom teacher defines a student's problem, implements an intervention in the classroom, and documents the results. If the student continues to flounder academically, he/she is referred to a problem solving-team, generally composed of the classroom teacher, school psychologist, school social worker, special education teacher, building administrator, and other specialists, as needed. At this stage, the four steps of the process are again followed, "with a movement towards more intensive interventions, goal setting, and more frequent data collection" (Marston et al., 2007, p. 281). If the student continues to struggle after receiving this more intense intervention after six to eight weeks, the student, in this particular model, begins the formal evaluation process for special education.

Standard treatment protocol. Based in part on Deno's work in data-based program modifications (Deno, 1985), the standard treatment protocol method for developing interventions involves "the use of [the] same empirically validated intervention for all

students with similar academic or behavior needs" (NASDSE, 2007, p. 8). By using a highly structured, standardized program during interventions, schools ensure that struggling students receive an intervention that, typically, has been demonstrated to be effective for a large number of students (Batsche et al., 2006).

Vaughn, Linan-Thompson, and Hickman-Davis (2003) studied the implementation of a standard treatment protocol in a RTI model. Students received a standardized intervention through several tiers of instruction. The intervention focused on the five main components of reading instruction identified by the National Reading Panel (2000) as essential for beginning readers: phonemic awareness, phonics/word study, vocabulary, fluency, and comprehension. During a series of 35-minute tutoring sessions, specific time periods were spent on each component; for example, all tutors spent approximately five minutes on fluency each day. The time spent on each activity was modified during the third 10-week cycle of interventions in order to meet student needs. For example, reducing the time spent on phonological awareness activities modified the intervention. All tutors made the same modifications and were observed by the researchers eight different times throughout the duration of the study to ensure that the tutors were delivering the intervention with fidelity.

Hybrid model. As Batsche and colleagues (2006) argue, "it appears that a merger of the two approaches. . . [may be the] most desirable" (p. 24). The desirability of the hybrid model stems from the trade-off schools are forced to make by adopting a particular model. Standard treatment protocols are generally research-based and allow schools to ensure that students are receiving high quality instruction. However, a standard treatment protocol does not allow for schools and/or problem-solving teams to develop more individualized interventions that specifically address a student's need. Yet the problem-solving method may

overwhelm school staff in terms of requiring the development of individualized interventions for every struggling student, nor does it provide any aspect of quality control. In other words, schools are not ensured that the interventions the students receive are high-quality. Therefore, schools may adopt a hybrid model combining the problem-solving process and the standard treatment protocol to develop interventions for struggling students at various tiers. However, little research has been conducted with schools implementing a hybrid model.

Hypothesis. Regarding the use of a particular RTI model, my hypothesis is that the selected sites will utilize a hybrid model of selecting interventions within their RTI framework as the standard protocol and problem-solving models (as conceptualized by research) do not provide adequate flexibility to address the context of schools for feasible implementation.

Critical Components of RTI

Regardless of which process a school uses to implement RTI, five components are consistently referred to as critical components of RTI. These components include universal screening, continuous progress monitoring, a multi-tiered intervention system, the use of high-quality, scientifically-based curriculum in core instruction, and fidelity of implementation (Mellard, 2004).

Universal screening. Universal screening links directly to prevention by providing a quick and rigorous way to determine which students are at risk for reading difficulties. Schools implementing RTI generally use universal screening to identify which students are eligible for receiving interventions. Universal screening typically involves the administration of a brief measure to all students in a school at least once a year (often at the beginning of the school year and/or during the grade reporting period). Schools may identify students in need

of intervention by establishing specific norm-referenced "cut-points" (e.g., all students scoring below the 20th percentile on a specific measures) or specific performance benchmarks (e.g., all students scoring reading below 10 words a minute on an oral reading fluency measure).

By using a specific measure to screen all students, schools are no longer required to rely on teacher referral to identify struggling students; therefore, schools may have greater confidence that the majority of students in need of intervention are being identified. However, schools can only be confident in their identification of struggling students if the measure used and/or "cut points" established in screening "yield a high percentage of 'true positives' (approaching 100%)" (Davis, Lindo, & Compton, 2007, p. 33). Yet schools also must select appropriate screening criteria in order to ensure that too many students are not identified as requiring interventions, thereby overwhelming the system.

Progress Monitoring. A second component of RTI, progress monitoring is related to both prevention and identification as it serves as a tool for documenting the progress of students who are "screened" for risk, and also as a data source to facilitate referral and identification for learning disabilities. Progress monitoring, or the assessment of a student's academic performance on a frequent basis using consistent measures (NASDSE, 2007), yields data to determine if a specific intervention is effective for a particular student, and is used to assess a student's academic performance. Typically, schools use curriculum-based measures (CBMs) to monitor the progress of students.

Progress monitoring is considered a critical component of RTI models as it allows schools to determine if a student is truly responding to a particular intervention. By administering a CBM consistently and frequently to a student receiving an intervention, the

school can assess both the efficacy of the intervention and the student's response. If a student fails to demonstrate academic progress over a set period of time, the school may use this information to modify, change, lessen, or intensify the intervention the student receives. Ultimately, schools may use a lack of progress on a CBM as a data point within the special education eligibility process.

Multi-tiered intervention system. The use of a multi-tiered system to deliver interventions is derived directly from RTI's conceptual framework to allocate resources (materials and personnel) in the most effective and efficient way to prevent the development of reading disabilities and to identify those students with existing reading disabilities. Students receive interventions that are in direct proportion to the need they demonstrate; therefore, the neediest students receive the most intensive interventions. Interventions can be intensified in a myriad of ways that may be implemented singly or in combination with another method; these include a) frequency of interventions, b.) duration of interventions, c.) smaller and/or more homogeneous grouping, d.) expertise of implementers, and e.) the prescription of particular program or curriculum utilized (Fuchs & Fuchs, 2006). As discussed earlier, the exact number of tiers and where the tiers occur (in terms of within general or special education) may differ among various RTI models; however, the overall structures of the tiered delivery systems are similar (Batsche et al, 2006).

Scientifically-based core curriculum. The rationale for including scientifically-based core curriculum as a critical component of RTI is derived from the extensive research base that documents that students who are at risk for reading difficulties may have their reading problems rectified when provided an effective class-wide reading instructional program (e.g., National Reading Panel, 2000; Snow, Burns, & Griffin, 1998). Students who require explicit

instruction are made more vulnerable to demonstrating reading difficulties when the quality of core classroom instruction is weak (Foorman et al, 1998). Improving classroom instruction is associated with overall greater academic outcomes for all students as well as with reduced reading difficulties (Foorman, 2007; Mathes et al., 2005).

Fidelity of implementation. Identified as a necessary component within RTI (Gresham, 2002), fidelity of implementation is also perceived to be the component of RTI that is least frequently implemented. Fidelity in terms of RTI implementation is often narrowly conceptualized as fidelity of implementation, or "the implementation of an intervention, program, or curriculum according to research findings and/or developers' specifications" (NASDSE, 2007). Yet, in order to ensure the integrity of a school's RTI implementation, particularly in regards to the identification of learning disabilities, determinations of fidelity should incorporate the process of the overall implementation of RTI at the school level as well as the implementation of instruction, screening, and progress monitoring (Johnson et al., 2006). Typically, schools assess fidelity of implementation by using a checklist or other measure that allows observers to indicate whether a particular instructional strategy or component was observed and for what duration it was utilized.

Hypothesis. Regarding the implementation of the critical components, my hypothesis is that each site will implement the various components differently to take into account student demographics, geographic diversity, personnel utilized, and other school-level variables.

RTI and Identification

While the field has seemed to come to a consensus regarding the promise of using RTI as a way to prevent and remediate academic difficulties (Batsche, Kavale, & Kovaleski,

2006), there is still a lack of agreement regarding the use of RTI to identify students with LD. Dissension among the field regarding the identification of learning disabilities is not a new phenomenon (Scruggs & Mastropieri, 2006). In fact, Samuel Kirk himself was concerned that "the use of the discrepancy was arbitrary and perhaps not valid" (Vaughn & Fuchs, 2006, p.58).

The potential lack of consistency in how LD identification is operationalized under RTI is a concern for many researchers, as they believe that states and districts may implement different practices (Griffiths et al., 2007). For example, different districts within the same state may set dissimilar cut-points on screening and progress monitoring measures and/or widely vary the duration and intensity of the supplemental instruction offered in Tiers II and III, resulting in students with equivalent skill levels being identified as learning disabled in one district and not in another (similar to the variation found under the discrepancy model).

The arguments against continued use of the discrepancy model seem to fall into one of two camps: 1) the use of the discrepancy model leads to unreliable and invalid identification (e.g., Macmann et al., 1989); and 2) the discrepancy model does not address the finding that no difference in instructional needs exists between those students identified as having learning disabilities and those students who are merely low achieving (e.g., Fletcher et al., 1998).

In response to claims that the use of RTI may lead to the unreliable identification of students with learning disabilities (as the procedures utilized may differ between districts and states), advocates for RTI cite research (e.g., Macmann et al, 1989; Macmillan, Gresham, & Bocian, 1998) showing that the use of the discrepancy formula has often led to

inconsistencies in eligibility decisions. For example, Macmann and colleagues (1989) found using a discrepancy formula for determining LD lacked reliability as the use of different achievement tests either increased or decreased the number of students found eligible for special education.

Other advocates for RTI argue that even if national standards were adopted to standardize the implementation of the discrepancy model (presumably leading to a more valid diagnosis), it is unclear that a valid diagnosis should be paramount over a need for more intense services. In other words, should the most intense services in a school be reserved solely for those students who are validly diagnosed with disabilities--regardless of need--or should students be able to access these services regardless of disability status as long as they demonstrate the need for such services?

Fletcher and colleagues (1998) found that the same interventions were effective in improving the reading achievement of both students identified as having LD and students without the diagnosis, and that these two groups of students did not differ in terms of cognitive response to interventions. Therefore, advocates of the use of RTI would argue that to deny services to one group of students (while both groups need and would benefit from such services) in the interest of maintaining a valid diagnosis seems arbitrary and unjust.

However, advocates of the discrepancy model dismiss claims that the model does not provide enough information to inform instruction as immaterial as the purpose of the discrepancy is to serve as "identification criteria" which will lead to valid diagnoses of LD (Batsche, Kavale, & Kovaleski, 2006, p. 7). In other words, the intent of the discrepancy is not to inform instruction, but rather to merely serve as an identifier of whether a student has a LD or not.

Hypothesis. My hypothesis regarding the use of RTI data and processes in special education eligibility decisions is that the identified sites will reflect the ambiguity in the literature and state and district educational policies towards using Response to Intervention to identify students with LD. Without clear-cut guidance from districts and/or states regarding how to use RTI to identify students with disabilities, the sites will focus more on using RTI as a comprehensive school reform than as a means for identifying students with LD.

Summary

RTI is a conceptual framework that extends work previously designed to promote prevention in public health. The purpose of the RTI framework is two-fold: the prevention of future educational difficulties and the remediation of existing ones. In addition, some states and/or districts may use RTI as a data source for the identification of students with LD. Although RTI has garnered strong support among researchers and practitioners, the field has not come to a consensus regarding its use. I hypothesize that the implementation of RTI at the five sites selected for this study will reflect the relative ambiguity surrounding RTI in the research; this ambiguity will be manifested in the use of a hybrid model, varying implementation of the critical components, and the positioning of RTI as a comprehensive school reform.

CHAPTER 3

METHOD

This qualitative study uses a case study design (multiple cases) describing the implementation of Response to Intervention (RTI) in reading at five schools. The participating sites span grades K – 8, serve approximately 3000 students, and represent five distinct geographic regions. The procedures for selecting participants and collecting data are described below and address three research questions.

Research Questions

The following research questions guided this study:

1. How are the identified sites (n=5) implementing Response to Intervention in terms of the process used to select interventions: problem solving, standard treatment protocol, or a hybrid model?
2. How do the identified sites implement recommended components of high-quality Response to Intervention models in reading: universal screening, progress monitoring, a multi-tiered system of increasingly intensive interventions, scientifically-based core curriculums, and fidelity of implementation checks?
3. How are selected sites using Response to Intervention processes and/or data sources when identifying students with learning disabilities?

Research Design

The research design is a case study, which is defined as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2003; p. 13). In particular, a case study should be chosen when the researcher wants to answer questions of

"how" and "why" in terms of contemporary phenomena and when variables cannot be manipulated (Yin, 2003). A descriptive, multiple-case study design was utilized in this study to examine how the selected sites (chosen based on apriori criteria about RTI) implemented practices and processes identified as research-based. There are two types of case study designs: one that is descriptive and one that is explanatory. These case studies are descriptive, as little research has been conducted regarding the implementation of RTI in field-based contexts; the majority has been in researcher-guided contexts. These case studies were conducted to generate hypotheses regarding effective implementation of RTI.

A case study design was the preferred methodology for several reasons. Case studies are particularly suited for exploring new, developing practices such as the implementation of RTI in schools and districts. In addition, a case study design is ideally suited for describing the context within which practices are being implemented. Due to the lack of research regarding RTI within a field-based context, case studies are ideal to address this gap. In addition, the examination of phenomena within context is best achieved through case study design. Finally, case study methodology was selected over other less appropriate methodologies such as surveys and ethnographies. A survey is restricted in terms of the information it is can collect and how it investigates context (Yin, 2003). While an ethnographic design is able to study a "contemporary phenomenon within a real-life context" (Yin, 2003, p. 13), it avoids specifying a theoretical framework prior to the study onset (Lincoln & Guba, 1985). Specifically, the conceptual framework for this multiple-case study was that the selected sites implemented high-quality RTI practices differently to adjust for student demographics, geographic diversity, personnel utilized, and other school-level variables.

Unit of analysis

The unit of analysis in a case study is determined by how the research questions are defined (Yin, 2003). For this study, the unit of analysis was at the site level, as the research questions required exploration and description of the implementation of RTI at and across each site. In addition, the personnel responsible for implementing RTI differed across sites. Focusing solely on the principal, school psychologist, or special education teacher did not yield enough relevant information to focus the unit of analysis on an individual in each case; rather, teams of individuals (including general education and special education teachers, specialists, school psychologists, and principals) were interviewed at each site. To facilitate this process, sites identified the key personnel who held critical roles in the development and implementation of RTI. At a minimum, two key personnel at each site participated in individual interviews.

Procedures

Procedures included: (a) selecting cases, (b) collecting all data, and (c) analyzing data.

Selection of Cases

In identifying the sites to be included in this study, purposeful sampling was used. The participating sites met the following criteria: (1) implementing RTI, (2) selected by a panel of experts due to their demographic and geographic diversity as well as their high level of implementation of RTI, and (3) willing to participate in the research study. All sites selected by the panel indicated that they were willing to participate.

To select participating sites, a multi-step selection process was implemented. Initially, the researcher identified contacts at the state and district level with the assistance of NRCLD, Joseph Kovaleski (Professor, Indiana University of Pennsylvania), and W. David Tilly (Coordinator of Assessment Services, Heartland Area Education Agency, Iowa) as well as with the assistance of the Center on Instruction, Special Education Strand (COI-SPED) and Regional Comprehensive Center (RCC) staff members. By using sources nationwide as well as nationally-recognized experts on RTI implementation, the researcher attempted to identify as large sample as possible of potential participants. These state and district level individuals were contacted by the researcher, briefed on the research project, and asked to identify schools and districts that could be candidates for inclusion in this study. Additional state and district contacts were obtained through meeting participants at the Innovations Conference, sponsored by the Long Beach Unified School District in California.

These contacts provided the researcher with the contact information for approximately 32 sites. Of these sites, contact persons from 16 sites agreed to participate in an hour-long phone interview in January 2007; ultimately 14 of these sites participated in the interview sessions, which occurred over a period of three weeks. Two sites did not call in during their scheduled interview time or respond to follow-up emails.

Prior to the phone interviews, all participants completed consent forms (Appendix B). The contacts at each site selected participants in the phone calls. Participants included principals, school psychologists, reading specialists, speech and language pathologists, district personnel, and special education teachers.

The researcher conducted all of the interviews using the RTI Exemplary Practices Phone Survey Protocol (Appendix C). Using information gathered through these phone calls,

the researcher compiled narrative site reports, which were typically between 5 to 6 pages in length (see Appendix D for an example).

COI-SPED staff and a project officer from OSEP reviewed the masked site reports, along with a table of demographic information for all the sites. After discussion of each site's RTI model and demographic information, six sites were excluded from the project due to lack of tiered interventions or progress monitoring. Two sites were excluded for having similar demographic information as other remaining sites, whose implementations were slightly stronger. The researcher was present at this meeting but did not participate in the discussion.

The nine remaining masked site reports and the demographic table were sent to a panel of expert reviewers (Scott Baker, University of Oregon; Greg Roberts, Center on Instruction – Special Education Strand; George Bastche, University of South Florida; and Ingrid Oxaal - Office of Special Education Programs). Each reviewer had approximately two weeks to read the site reports and create a list of sites that should be included in the study due to the overall sophistication of the site's implementation of RTI and demographic variables (including, but not limited to, English Language Learner and Free and Eligible for Reduced Lunch populations). Three common sites were approved by each reviewer and were, therefore, selected to participate in this study. Following a discussion among the reviewers, two additional sites were selected based on sophistication of implementation, unique features of implementation, and demographic variables. All experts strongly agreed on the five selected sites. Again, the researcher was present in this meeting but did not participate in the discussion.

The five selected sites were contacted by the researcher regarding their potential participation in the study. In exchange for participating in the study, the sites were granted anonymity and a modest stipend to help offset costs associated with the site visit. All five sites agreed to participate in the study.

Data Collection Procedures

A Data Collection Protocol was developed to direct the data collection procedures (see Appendix E). The use of a data collection protocol in case study research helps increase the reliability of the research; the protocol "is intended to guide the investigator in carrying out the data collection from a single-case study" (Yin, 2003, pg 67). In this particular study, the Protocol ensured that the data collection procedures were identical for each case.

Data collection occurred through phone interviews and site visits. Initial phone interviews used the RTI Exemplary Practices Phone Survey Protocol (Appendix C). To ensure that the content of the interviews were documented accurately, a second researcher sat in and took notes on all interviews. The researchers then compared the notes and used them to compile the initial narrative site reports.

Site visits included interviews with the RTI leadership team and teachers, as well as observations of instruction at each level of tiered instruction. In particular, the data collection at each site focused on barriers and supports encountered by schools or districts during implementation of screening, progress monitoring, core instruction, and interventions. The sites visits lasted one school day at each location. Each site was asked to arrange a schedule for the visit that includes 30-minute observations of instruction at each tier, a 60-minute interview with the principal, school psychologist, and/or the RTI leadership team, and a 60-minute focus group with six to twelve general education teachers, special education teachers,

and interventionists. The protocols used for the interviews, focus groups discussions, and observations are included in Appendix F.

Data Sources

The information obtained from the Phone Survey Protocol, Tiered Instruction Coding Form, Leadership Interview Protocol, and Teacher Focus Group Protocol was used to compile Site Visit Reports (see Appendix G for an example), which were sent to the individual sites for review. The sites then provided feedback and addressed any discrepancies (see the Site Visit Report with Participant Feedback in Appendix H for an example). Feedback from the sites was then incorporated into the Final Report (see Appendix I for an example), which was used for analysis in this study.

All data collected was stored in a case study database located in a locked office. This database included all evidentiary data collected throughout the duration of the study including--but not limited to--notes taken by the primary researcher, notes taken by the second researcher during the screening phone calls, interview protocols, observation forms, and all narrative reports (the Site Selection Report, the Site Visit Report, the Site Visit Report with Participant Feedback, and the Final Report).

One of the predominant strengths of case study research is the use of multiple data sources (Yin, 2003). For this particular study, four data sources were collected: documents, archival records, interviews, and direct observations.

Documents. During the visit to each site, personnel at the sites were encouraged to share documentary information with the researcher. This information consisted of, but was not limited to: letters to staff and/or parents, memoranda, announcements, administrative documents, and newsletters. Documentary evidence can "corroborate and augment evidence

from other sources" (Yin, 2003, p. 87); however, it is important to note that the documents were written for different audiences and objectives than this case study concerned. Therefore, the information presented in the documents may not represent the "unmitigated truth" (Yin, 2003, p. 87).

Archival records. Archival records such as school master schedules, teachers' lesson plans, and school organizational charts were collected during each site visit.

Interviews. Three interviews were conducted with each site. All interviews took approximately 60 minutes to complete. The interviews served as the primary data source, and the first interview also doubled as the screening protocol. The RTI Exemplary Practices Phone Survey Protocol consisted of contact information such as name of school, name and address of person completing the interview, and-a series of open-ended questions with fixed-response prompts which were utilized when necessary (Appendix C). The questions were categorized into two levels; Level I questions were broad and general (e.g., Describe your screening and progress monitoring system.), and Level II questions elicited more specific information (e.g., Do you use any kind of electronic resources to manage your screening and progress monitoring data after they are collected?). The same first question (a Level I question) was asked of all sites; depending on the answer, the researcher either began asking the Level II questions or skipped to the subsequent Level I questions. This categorization of questions was developed to conserve time for both the participants and the interviewer, as participants who were not implementing a RTI model that was similar to models identified in researcher were exempt from Level II questions.

Topics covered in the RTI Exemplary Practices Phone Survey Protocol were: consensus building, leadership, beginning implementation, data collection/management, data-based

decision-making, professional development, core curriculum, intervention, fidelity of implementation, Learning Disability identification, and self-identified strengths of their RTI implementation. Participants included principals, school psychologists, reading specialists, speech and language pathologists, district personnel, and special education teachers.

The second and third interviews occurred during the site visits. The second interview occurred with RTI leadership team members who were self-selected at each site. (See Table 4 for a list of RTI leadership team members at each site). Seven open-ended questions were asked with several fixed-response prompts that were used if needed (see Appendix F). Two questions on the RTI Leadership Interview Protocol were asked on the Phone Survey Protocol. In these cases, the answers given by the leadership team members were used to corroborate previous answers as well as to gather more information about the particular topics.

A third interview was conducted with a selected group of teachers at each site. The RTI leadership team at each site selected teachers who taught at all tiers of the RTI model to participate in this interview. The Teacher Focus Group Protocol included ten open-ended questions regarding knowledge and perceptions of their site's RTI implementation (see Appendix F). The questions focused in particular on the role the teachers saw themselves play in the implementation of RTI and how they perceived their particular's sites implementation in terms of strengths and barriers.

Direct observations. During the one-day site visits, the researcher observed instruction occurring in each of the tiers through a series of thirty-minute observations. The research conducted observations of each intervention using the Tiered Instruction Coding Form (see Appendix F). This form was adapted from the Instructional Content Emphasis-

Revised instrument (Edmonds & Briggs, 2003). Four dimensions of instruction were coded during each observation: instructional grouping, materials used, content category, and instructor. Each dimension was coded according to fixed coding categories. The coding categories for instructional grouping were whole class, small group, pairs, individualized, and independent. Materials used were divided into the coding categories of core curriculum, purchased intervention programs, and teacher-developed intervention programs. The coding categories for content category were reading, mathematics, writing, and behavior. For the Instructor dimension, the coding categories were general education teacher, special education teacher, paraprofessional, Title I teacher, reading or math specialist, or other.

Site Reports. In the process of collecting data, the researcher wrote three narrative site reports for each case. These site reports also reflect information obtained from the other data sources. Only the final site reports (see Appendix I) were used in this study as they reflect the information contained in the previous versions and have been reviewed by the participants for accuracy.

Participants

Cumulatively, the five selected sites span grades K – 8, serve approximately 3000 students, and represent five distinct geographic regions.

School A is a mid-sized elementary school in the Pacific Northwest, serving students in grades K-5. The majority of students at School A are eligible for free and reduced lunch, and approximately 40% of the students are English Language Learners. School A uses a three-tier model for reading.

School B is a large elementary school in the Midwest serving fifth and sixth graders. It is structured like a middle school, however, with classes organized into periods and the

grades are divided into teaching teams. There are three teams in fifth grade, and two teams in sixth grade. School B serves a small percentage of students eligible for free and reduced lunch, and only one percent of students are English Language Learners. School B implements a four-tier model for reading.

Located in the Northeast, School C is a mid-sized K-4 elementary school. Approximately 40% of students at School C are eligible for free and reduced lunch; only one percent of students are designated as English Language Learners. School C implements a three-tier model for reading.

School D is a mid-sized K – 5 elementary school in the Southeast. Over half of the students at School D are eligible for free and reduced lunch, with a small percentage of students designated as English Language Learners. School D implements a three-tiered model in reading.

Located in the West, School E is a mid-sized middle school, serving students in grades 6 – 8. Approximately half of the students are eligible for free and reduced lunch; a quarter of the students are designated as English Language Learners. School E implements a three-tier model in reading.

For a summary of site features see Table 1; for more details on the student demographics of each site, see Appendix J.

CHAPTER FOUR

FINDINGS

The findings are organized to address the three research questions. The findings from School A are described in full. Details from the other four sites are then described to determine if the findings found in the first case were replicated across cases; when differences were found, those differences were elaborated for the respective case. The five participating sites included three elementary schools, one intermediate school, and a middle school. The researcher conducted multiple interviews with key personnel at each site, observed instruction at various tiers of intervention, and collected documents and artifacts relevant to each site's implementation of Response to Intervention (RTI). Qualitative methods were used to analyze the data. The following research questions were addressed:

1. How are the identified sites (n=5) implementing RTI in terms of the process used to select interventions: problem solving, standard treatment protocol, or a hybrid model?
2. How do the identified sites implement recommended components of high-quality RTI models in reading: universal screening, progress monitoring, a multi-tiered system of increasingly intensive interventions, scientifically-based core curriculum, and fidelity of implementation checks?
3. How are selected sites using RTI processes and/or data sources when identifying students with learning disabilities?

Data Analysis Plan

Data was analyzed by applying two related methodological approaches to qualitative case studies. For the purpose of analyzing interviews and other qualitative data sources,

Miles and Huberman's approach to analysis was the preferred method. For the purpose of cross case analyses, Yin's (2003) model was applied.

Miles and Huberman (1994) identified the following characteristics of qualitative research: phenomena are investigated within the context that they occur in the field, the role of the researcher is to serve as the "main 'measurement device' in the study" by collecting data that will help the research gain a "holistic" overview of the phenomena, and the analysis is conducted by examining words (pp. 6-7). In this study, each case's implementation of RTI was investigated within the context of each school and no standardized measures were used.

Coding

The "words" in this study were analyzed using the following process. Each data source was coded according to a predetermined list of codes created prior to the sites visits. These "start codes," displayed in Table 2, were developed from the conceptual framework, hypotheses, and the research questions (Miles & Huberman, 1994). The researcher manually coded all data sources according to this list.

As necessary, the start codes were revised in order to better fit the data. Lincoln and Guba (1985) categorized such revisions as filling in, extension, bridging, and surfacing. Filling in refers to adding codes when necessary to address gaps in the analysis that the start codes cannot address. Extension occurs when the researcher returns to previously coded data and analyzes it "in a new way" (Miles and Huberman, 1994). Bridging refers to the identification of new relationships within given categories that were previously not understood or seen. Surfacing refers to the identification of new categories. When the start codes were revised in any of these ways, all of the data previously coded was re-analyzed. The final code list is displayed in Table 3.

Coding Reliability

To establish coding reliability, a second, experienced researcher coded the first five pages of the data using the start codes. Reliability was calculated by dividing the number of agreements with the sum of the total number of agreements and disagreements (Miles & Huberman, 1994). Any disagreements were resolved through discussion by clarifying differences until the two researchers established a consensus. If a reliability of 90% was not achieved on the first five pages, the next five pages would be used to establish coding reliability. In addition, check-coding, a process in which coding reliability is reestablished through the process described above, occurred again approximately two-thirds of the way through the coding process. Miles and Huberman (1994) recommend this additional check coding process as the researcher "may drift into an idiosyncratic sense of what the codes mean in light of new insights" (p. 64).

Cross-case Analysis

Using the coded data, word tables were created for each case. These tables "display the data from the individual cases according to some uniform framework" (Yin, 2003, p. 134); in this study, the uniform framework was based on the research questions. A replication strategy was used to analyze the cases (Yin, 2003). The conceptual framework of RTI was used to study one predetermined case in depth. The remaining cases were then examined to determine if the findings found in the first case were replicated across cases. This strategy is similar to the replication logic applied in experimental studies.

Findings

Description of Case Study A

School A is an elementary (K-5) school in Oregon that has been implementing RTI since 2002. Prior to 2002, School A used a Positive Behavior Support (PBS) model to support students having behavior difficulties; school administrators wanted a similar data-driven system to address the needs of students struggling academically. The school has combined the two frameworks into one over-arching program, Effective Behavior and Instructional Support (EBIS). According to school documents, EBIS has three main purposes: a) "to review school-wide behavior and academic data in order to evaluate the effectiveness of core programs, b) to screen and identify students needing additional academic and/or behavior support, and c) to plan, implement and modify interventions for these students."

Model of RTI

School A implements a hybrid model of RTI with components of both the standard treatment protocol and problem-solving method present. Documents reveal that School A identifies its model as standard treatment protocol at Tier II and problem solving at Tier III. However, at both tiers, the process School A uses to select interventions more closely resembles a combination, or hybrid, of the two approaches.

Students performing in the lowest 20 percent of each grade in reading are automatically assigned by the RTI team [the principal, school counselor, literacy specialist, special education representative, English Language Learner (ELL) representative] and grade-level teachers to receive a Tier II intervention using one of several standardized intervention programs (see Table 4). When assigning a student to a Tier II intervention, the RTI team and

the grade-level teachers examine the screening data to determine areas of need and then try to "match" a student to a particular intervention. For example, if a screening measure indicated that a second grader was struggling with fluency but not with decoding, the RTI team would place the student in a fluency-focused intervention program such as Read Naturally. While the interventions implemented in Tier II are all standardized, this model is not a "pure" standard treatment protocol as different interventions are offered at this Tier based on students' demonstrated areas of need. Therefore, at Tier II, School A utilizes a hybrid model as standardized treatments are implemented after an informal problem-solving method is used to determine students' areas of need.

In general, newly "enrolled" Tier II students receive an initial month-long intervention during which progress is monitored weekly. Students who sufficiently "accelerate" their progress (i.e., score four data points on or above their "aimline") are "graduated" from Tier II, while those making inadequate progress (i.e., progress trend is below the "aimline" for at least eight weeks) are reviewed by the RTI team.

At this point, the RTI team and the grade level teachers use the Individual Problem Solving Worksheet (see Appendix K) to determine which intervention the student should receive in Tier III. The worksheet facilitates the process in which the RTI team examines all of a student's screening and progress monitoring data and other relevant data (attendance records; number of behavior referrals; language proficiency scores, if applicable; and vision and hearing screen results) and then develops a hypothesis regarding why the student is continuing to fail to make progress in reading. To assist in the hypothesis development, six questions are included in the form such as, "Does evidence support that the student's problems may be primarily due to attendance problems, or frequent school interruptions?"

and "What interventions have been put in place to address this issue?" If the team discussion results in a hypothesis that the evidence suggests that the student has low skills in reading that are not due to limited attendance, behavior-related issues, economic or cultural differences, language difficulties, or limited English proficiency, the student will be placed in a Tier III intervention. The Individual Problem Solving Worksheet seems to cover the first two stages of the Problem-solving method (problem identification and problem analysis); however, the last two stages of Problem-solving (plan implementation and plan evaluation) are not included in this particular document.

School A's RTI leadership team refers to Tier III interventions as individualized, and the interventions are individualized in terms of the fact that they are offered in a one-on-one format. However, they are not truly individualized as they are standardized, highly-scripted programs (see Table 4). School A combines the problem-solving and standard treatment models of RTI in order to determine the appropriate interventions for students in both Tiers II and III.

Critical Components of RTI

The critical components of RTI include universal screening; continuous progress monitoring; a multi-tiered intervention system; the use of high-quality, scientifically-based curriculum in core instruction; and fidelity of implementation (Mellard, 2004). Descriptions of how School A implements each of these components are given below.

Universal screening. In an RTI framework, universal screening is typically used to identify those students in need of interventions. By screening all students, schools attempt to eliminate any potential bias on the part of teachers in referring students to intervention.

All students at School A are screened every eight weeks to identify those students reading in the bottom 20 percent of each grade level. Dynamic Indicators of Basic Early Literacy Skills (DIBELS) measures are used at all grade levels (see Table 5). School A's district hires a cadre of retired teachers (the district DIBELS team) to administer the measures at each site. Educational assistants (paraprofessionals) at School A also assist with screening administration.

In addition, School A uses the screening measures to determine the effectiveness of its core reading curriculum. If 80 percent of students do not score "proficient" on the screening measures, additional professional development on providing high-quality reading instruction and the core-curriculum is planned and implemented to "shore up" Tier I instruction.

Progress monitoring. Consistent and frequent progress monitoring is used in an RTI framework to determine if a student is "responding" to a particular intervention. At School A, DIBELS measures are used as progress monitoring assessments for students receiving reading interventions in Tiers II and III; kindergarten students are monitored with the Letter Naming Fluency (LNF) instrument, and Oral Reading Fluency (ORF) is used with first through fifth graders. Students enrolled in Tier II are progress monitored bi-monthly by their intervention teachers while students in Tier III are monitored weekly. All assessment information is kept in individual students' folders. Students are assessed on different schedules according to particular intervention teachers (e.g., some progress monitor all students on a given day, others progress monitor one particular student each day).

The RTI team reviews students' progress monitoring data at its monthly meetings to determine the effectiveness of the interventions and decide if a student can "graduate" from

Tier II, requires additional Tier II intervention, or needs a more intensive intervention in Tier III. These decisions are based on clear entry and exit criteria for each tier. When a student enters Tier II, his/her screening data and grade-level benchmarks are used to determine an "aimline" (which specifies the amount of progress a student must make each week or month in order to perform at grade level after a certain period of time). Progress monitoring data is graphed with the aimline data to determine if progress is sufficient. If a student's progress monitoring data shows that the student is failing to make any progress (i.e., the slope of the student's line is flat or negative for at least four data points) or the student is not making progress at a rapid enough rate to catch up with grade level peers (i.e., the progress monitoring data points are increasing but are below the aimline for at least four consecutive data points), the student is moved into a more intensive intervention (from Tier II to Tier III), a different intervention within the same Tier, or referred to special education.

Multi-tiered intervention system. The use of a multi-tiered intervention framework allows schools to allocate their instructional resources to effectively deliver interventions to struggling students. A three-tier intervention system is in place at School A. The RTI team selects the appropriate intervention for students using the data presented in the monthly meetings following the hybrid method as described above. Tier II interventions are offered daily in the afternoon outside of the general education classroom and last between 20 and 45 minutes in groups of four to six students. Tier III interventions also occur outside of the general education classroom, typically last between 30 and 45 minutes, and are often administered on a one-to-one basis. The school also uses extended day programs, such as after-school tutoring, to offer Tier III interventions. The same programs are used in Tier III as in Tier II, but the group size and intervention duration are changed to intensify the

instruction. The large number of interventions offered throughout the day allows the RTI team to place a student in a particular intervention with few delays.

At School A, educational assistants administer all of the interventions in Tiers II and III. The assistants generally rotate the intervention they deliver as well as where they deliver it according to student needs and space availability (e.g., one educational assistant may deliver Read Naturally outside of the third grade rooms then switch to Reading Mastery for first graders in the Title I room). The literacy coach trained all of the assistants on the intervention programs (see Table 4 for a list of intervention programs implemented at School A). Observed instruction was strong; the assistants were familiar with the programs they implemented, as the pacing was appropriate and effective, and they did not overly rely on the teachers' manuals. The schedules for the educational assistants change every eight weeks as intervention groups are adjusted according to screening data. Although the assistants played an integral role in School A's implementation of RTI, they posed several questions about the RTI model, their role in its implementation, and how they contribute to the overall success of RTI. In particular, several educational assistants commented that they would appreciate feedback from classroom teachers regarding how to improve their instruction as well as to help understand the reasoning behind decisions made by the RTI team.

Scientifically-based core curriculum. By using research-based core curricula in Tier I, schools help ensure that their Tier I implementation is strong and effective for a large number of students, thereby limiting the number of students in need of more intensive interventions. At School A, all students receive Tier I instruction in the general education classroom using Success for All (SFA) as the core curriculum. Students are grouped homogenously for reading instruction with groups changing every six to eight weeks as outlined by SFA.

Reading instruction is conducted in English in all the classrooms; however, in some classrooms, literacy may be the only instruction offered in English.

Success For All consultants provided the teachers with professional development on implementing the core curriculum. The observed instruction in the core reading programs was extremely strong in all grades. Teachers used a variety of grouping strategies to differentiate their instruction, they did not rely heavily on their teacher's manuals, pacing was strong, and little instructional time was lost during transitions.

Fidelity of implementation. As discussed earlier, fidelity of implementation is often perceived to be the least-implemented component of RTI. While School A lacks a formalized fidelity of implementation process, it does have formal fidelity of treatment checks at all intervention levels in reading. The literacy coach observes core curriculum implementation and conducts "component meetings" every other week, where effective strategies for instruction in one core reading component (such as vocabulary or fluency) are discussed. The literacy coach also observes the educational assistants once a year as a means of checking on fidelity. She provides program-specific refreshers to those who are not implementing the programs effectively and conducts as many informal observations as necessary for those particular instructors.

RTI and Learning Disability Identification

School A uses RTI to determine special education eligibility in grades K-5. The referral process begins after "unsuccessful" participation in one Tier II and two Tier III interventions. To determine eligibility, the school considers data derived from the interventions, assessment data, the student's developmental history, and information in the student's cumulative file. In addition, the multidisciplinary team can request additional

testing (e.g., measures of behavior/attention) with parental consent. The special education director feels that the process for referral to special education has been streamlined and made more transparent since the implementation of RTI. The district no longer uses intelligence testing in its LD eligibility decisions. The percentage of students served in special education (10%) and identified with learning disabilities (LD; 5%) has remained stable since implementing RTI district-wide, a trend that district officials see as supporting their position that RTI does not eliminate the LD construct but instead provides a more reliable framework for accurately identifying students who in fact have learning disabilities. According to the principal, there have been fewer referrals to special education overall; of those that have been made, she is more confident than in the past that "they have been on target for identifying true learning problems."

Hypothesis Confirmation

In this section, the hypothesis formulated for each research question will be discussed in light of the findings from School A. To help confirm or disconfirm these hypotheses, findings from Schools B, C, D, and E will be presented. For a summary of site features, see Table 1; for more details on each sites' RTI implementation, see Table 4.

Models of RTI

The first research question in this study was, "How are the identified sites (n=5) implementing Response to Intervention in terms in terms of the process used to select interventions: problem solving, standard treatment protocol, or a hybrid model?" My hypothesis is that the selected sites will utilize a hybrid model of selecting interventions. School A confirmed this hypothesis as it combines the problem-solving and standard

treatment models of RTI in order to determine the appropriate interventions for students in both Tiers II and III.

Similarly, Schools B, C, D, and E combine the two approaches in determining which interventions to use in Tiers II, III and IV (if applicable.) Schools C, D, and E offer several standardized, research-based interventions at both Tiers II and III. The RTI teams at each school use informal problem-solving methods at Tier II, relying on student data to make appropriately informed decisions; for example, a student with low fluency may be assigned to an evidence-based fluency intervention. This differs from a "pure" problem-solving method in that the interventions are not individualized and the procedures for implementing the problem-solving method are not formalized, and it differs from the "pure" standard treatment protocol in that not every student enrolled in a particular tier receives the same intervention. Instead, Schools A, C, D, and E use problem-solving methods to determine which standardized intervention a particular student should receive, thereby combining the two models of RTI into a hybrid model.

Interestingly, School D (an elementary school in Florida) began implementing an individual problem-solving model approximately eleven years ago. However, as teachers grew more familiar with and adept at problem-solving, they became overwhelmed by the numbers of individual interventions being offered. According to district personnel, the standard treatment protocol approach to RTI seemed like a natural solution to make this process more systematic. However, School D is not implementing the standard treatment protocol as designed in research studies (e.g., Vaughn, Linan-Thompson, and Hickman, 2003) as the curricula used in Tiers II and III include PALS, Rewards, STARS, Extensions for Reading, Quick Reads, Vocabulary!, and K-PALS. It does seem to use the problem-

solving method in Tier III, which is a temporary diagnostic level to determine if the student should be referred to special education.

School B (an intermediate school in Wisconsin) differs in that it does not offer a standardized intervention at Tier II. The intervention teachers use the core curriculum materials to pre-teach or re-teach concepts, vocabulary words, or strategies. Additionally, students are homogeneously grouped according to the following needs: *Group 1*- Comprehension, *Group 2*- Fluency, *Group 3*-Phonics. Teachers place an emphasis of instruction on the specific needs of the group using core curriculum materials.

It is important to note that even though none of the sites included in this study can be easily classified as using either standard treatment protocol or problem-solving methods, all of the schools use a data-driven process to determine which students require intervention. Because of scheduling constraints, the process differs slightly for the first round of interventions at the two middle school sites (School B and School E): these sites make school-wide data-based decisions about student placement at the outset of each school year using data from the last screening measure administered the previous school year, while the elementary sites typically do not begin placing students in interventions until after the first screening measure is administered, which usually occurs several weeks into the school year, at the earliest. However, after the screening test, the process for assigning students to intervention using the screening results is similar at all of the sites.

Critical Components of RTI

The second research question in this study is, "How do the identified sites implement practices recommended components of high-quality Response to Intervention models in reading: universal screening, progress monitoring, scientifically-based core curriculums, a

multi-tiered system of increasingly intensive interventions, and fidelity of implementation checks?" My hypothesis regarding the implementation of the RTI critical components is that the selected sites will implement the practices dissimilarly due to differences in student demographics, geographic diversity, personnel utilized, and other school-level variables.

My hypothesis was not confirmed as Schools B, C, D, and E implement four of the five core components similarly to School A: (a) screening to determine which students are at risk; (b) progress monitoring of students in Tier II and III (and IV, if applicable); (c) a common core instructional program in Tier I; and (d) increasingly intense instructional interventions in the higher tiers for students not making sufficient progress. There is a great deal of conceptual consistency across the five sites (both elementary and middle) in the way these different components are organized despite differences in school and student demographics and other school variables (see Tables 1 and 4). However, the sites differ markedly regarding how they implement fidelity of implementation.

Universal screening. Universal screening is used in an RTI model to determine which students are in need of interventions and which students' needs are being adequately met within the Tier I (general education) setting (Mellard, 2004). All sites administer at least three screening assessments each year, and no site administers more than six. Decisions regarding the frequency of screening seem to depend on what is already embedded in the core curricula and on district-level requirements (see Table 5).

The personnel who administer the RTI screenings differ across sites. Similar to School A, School C (an elementary school in Pennsylvania) used a district team consisting of special education teachers, Title I teachers, a school psychologist, and a literacy coach to administer the screening measures. While this model was efficient in terms of time, the

principal purportedly felt that teachers did not take ownership of the data and made excuses for students who did not perform well, blaming factors such as the lack of relationships between the student being tested and the tester. To address these concerns, School C trained the teachers on administration of the screening measures, and, in subsequent years, teachers participated in the test administration with the district team. This collaborative approach has increased the data's value and validity for teachers, in the principal's view.

At School E (a middle school in California), substitute teachers are hired to administer both the decoding and reading fluency measures. (The principal prefers using substitute teachers to avoid losing instructional time.) The site attempts (usually successfully) to use the same substitute teachers for each administration to protect the data's validity and reduce the need for constant training. (To ensure this occurs, at the beginning of each school year selected substitutes are given the screening dates and are asked to reserve those times.). Substitutes then screen one grade at a time and appeared to be fairly efficient. Despite the differences in terms of what measures are administered and who administers them, the general purpose of the screening data at all five sites is to determine student placement in intervention tiers. The screening data seem to serve as a type of catalyst in terms of prompting staff members to meet about school-wide data, discuss how well things are working, make adjustments to interventions, and arrive at decisions about moving students from one tier to another.

Progress monitoring. In an RTI framework, the monitoring of student progress on a frequent basis is essential as progress monitoring is the "only method to determine if a student is improving" or benefiting from the intervention (Batsche et al., 2006, p. 20). In addition to universal screening, the progress of all students beyond Tier I is monitored

regularly, either weekly or every other week (see Table 4 for progress monitoring measures and procedures) typically by intervention teachers. As with the screening assessments, all sites in this study have established procedures for collecting progress-monitoring data. While their procedures differ, the general idea is that students who are not making adequate progress for a sufficient period of time move within the multi-tiered system so that they receive more intense instruction. Students in the more intensive tiers are generally progress-monitored more frequently than are students enrolled in less intensive tiers. At School B, a middle school, students are actively involved in charting their progress monitoring data, setting goals, and engaging in regular conferences with their intervention teachers about their progress.

School C is the only site where classroom teachers administer the progress monitoring measures for Tier II students. The classroom teachers may progress-monitor at any point during each two-week period. They are encouraged to administer the measures during times when instruction is not occurring, such as right before and after lunch and recess. In addition, School C employs a building-wide substitute teacher every day. If the substitute is not assigned to a classroom, he or she often helps manage a class while the teacher administers progress monitoring measures. Students in need of intensive interventions (Tier III) at School C are monitored weekly by their intervention teachers.

Multi-tiered intervention system. In the context of RTI as an instructional framework, all five sites have a clear focus on multiple tiers of instruction as the major component of RTI implementation. In addition, all five sites have a common orientation toward how tiers of instruction are organized and used (see Table 4). Tiers II and higher are for students receiving interventions, the major purpose of which is to accelerate students' progress so that

they can achieve grade-level academic and behavioral goals. Three sites have three tiers of instructional support; two sites have four tiers.

The sites vary in the personnel they use to implement interventions with staff capacity, scheduling, and student need the major factors influencing sites' decisions. As discussed earlier, School A uses educational assistants to administer all tiered interventions. At School B, all interventions, regardless of level and subject, are taught by an array of instructional personnel, including an ELL specialist, speech and language pathologist, special education teacher, Title I teacher, and reading specialist. The special education teacher and the reading specialist also teach the Tier III interventions.

School D's Tier II interventions are offered by classroom teachers in the general education classroom. Students are grouped homogeneously within grades for these interventions; students not in Tier II work independently during intervention. A variety of instructional personnel (e.g., Title I teachers, reading specialist, behavior specialists, speech and language pathologist, and some general education teachers) provide Tier III interventions. Tier IV interventions are provided by School D's special education teachers.

At School C, all students participate in Tier II sessions. These interventions are offered during Extended Learning Opportunities (ELOs), daily 30-minute periods led by the classroom teachers. While offering Tier II instruction to all students may not conform to prevailing models of Tier II as "supplemental instruction," School C implements Tier II in this way to minimize scheduling challenges. Students performing above grade level may receive an intervention such as Reader's Theater in a group of 25 students with one teacher or with an educational assistant and a parent volunteer. Students performing on grade level typically receive additional grade-level instruction in smaller groups. This instruction may

include activities extending the core curriculum. Students performing below grade level typically receive remedial instruction in groups of fewer than eight students based on their skill needs. The reading specialist offers Tier III interventions to groups of four or fewer.

At School B, intervention classes meet for one class period each day. Typically, in Tier II interventions, material generally introduced in the core curricula is either pre-taught or re-taught as necessary, meaning that intervention cannot be scheduled at times that conflict with core reading or math instruction. Tier III interventions offer intensive instruction with a highly structured, separate program not tied to the core curriculum. Similar to the elementary sites, the interventions at School B are all scheduled for the same period so that students can be easily transitioned.

Schools A, C, and E's RTI frameworks are organized into three tiers. Schools B and D offer four tiers of intervention. (At all of the sites, Tier I is conceptualized as core instruction in the general education classroom). School B's Tier II intervention classes meet for one period (approximately 50 minutes) every other day; group size ranges from four to nine. Students do not receive grades for Tier II interventions. Instead, most general education teachers count some of the Tier II work as extra credit for those students. Tier III intervention classes meet daily for 50 minutes; group size is seven or fewer. Soar to Success, which is aligned with the core curriculum and is more systematic and prescribed than the intervention offered in Tier II, is the main reading intervention. Tier IV interventions are individualized interventions for those students who are reading three to four grade levels below their grade level. Evaluation for special education may occur when a student is receiving this level of intervention and has not already been identified as eligible for special education services.

School D's Tier III differs from the other sites as the RTI leadership team conceptualizes Tier III as a temporary diagnostic level to answer the question, "Can general education meet this student's needs?" The student support team, with assistance from the grade level teacher, will design an additional intervention for the student. If applicable, the individualized intervention may be offered to two students at a time. This intervention may occur in the general education classroom, during Tier II, or may be a "pullout" program where target students are removed to a separate setting. The student support team reviews the progress monitoring data weekly to determine if current interventions are effective and the student can return to modified Tier II interventions, or if the student should be referred for Tier IV or special education.

Scientifically-based core curriculum. An essential feature of a multi-tiered RTI framework is that instruction within all tiers is scientifically based, implemented with fidelity, and delivered with high quality. Therefore, when there is a lack of student progress, it can be attributed to internal learning difficulties rather than to the quality of instruction. Similar to School A, Schools B, C, D, and E implement research-based core curriculum is reading in Tier I (see Table 4). School B uses Houghton Mifflin as a core curriculum during a daily 90-minute English/Language Arts block. School C also implements Houghton Mifflin during the daily 90-minute block dedicated to reading instruction. Harcourt's *Trophies* curriculum is used as the core curriculum for School D; Tier I classes vary in duration by grade level from 90 to 120 minutes. School E, a middle school, uses the Holt Reinhort core curriculum for 72 minutes daily (the length of a period). All students at School E also receive fluency instruction daily using *Six Minute Solution* during homeroom. As expected, the core

curricula differ at each site as the selection of a curriculum is often influenced by state and/or district adoption policies.

Fidelity of implementation. All sites included in this study appear to recognize the importance of providing effective instruction within each tier by implementing programs as intended and by using effective instructional principles in each program. However, monitoring fidelity is a challenge for all of the sites as all report that fidelity of implementation is an area that needs improvement. School A's system for ensuring fidelity of implementation is more developed than any of the other sites (see Table 4). For example, School B has no system in place for determining if interventions are offered with fidelity as the RTI leadership team consists of two teachers who are not able to observe instruction during the school day. Similarly, School D interviewees report that the teacher's union at that site did not consent to the use of fidelity checklists by the RTI leadership team; therefore, School D does not have a formal system in place.

However, none of the sites studied seem to have an integrated system wherein instruction can actually be ruled out as a possible cause of low progress either through low implementation fidelity or poor instructional delivery, or a system that determines if the RTI framework was implemented with fidelity. It does not appear that sites are moving toward this level of sophistication.

RTI and Identification

The third research question asks, "How are selected sites using Response to Intervention processes and/or data sources when identifying students with learning disabilities?" My hypothesis is that the identified sites will reflect the ambiguity in research toward using Response to Intervention to identify students with LD, and the sites will focus

more on using RTI as a comprehensive school reform than as a means for identifying students with LD.

All sites follow their state and or district guidelines in terms of making special education eligibility decisions. School A, School C, and School E are in states that have provided guidance to districts and schools interested in using RTI as part of special education identification. School B and School D continue to use an IQ-achievement discrepancy in their identification process while they wait for their respective states to finalize guidelines for integrating RTI. It is important to note that the leadership at all of the participating sites responded that they view RTI primarily as a comprehensive school reform rather than as a special education initiative.

Similar to School A, School C uses RTI to determine LD eligibility at all grade levels. The data from screening and progress monitoring are used along with parent input, classroom observation data, and standardized test data. An abbreviated IQ test is administered to students during the qualifying process; however, the IQ scores serve merely as another data source and are not used to calculate ability-achievement discrepancies. Students are still being identified at School C as having learning disabilities; but the principal is confident that as the implementation of RTI becomes more sophisticated, identification will become more accurate. As one teacher noted, "we are no longer identifying students [as having] disabilities because we did not know what to do with them." At present, students are generally referred to special education after 20-24 weeks in Tier III. School C is establishing specific guidelines for regulating the length of different interventions and their relationship to the referral process.

School B is still using the discrepancy model while the RTI leadership team waits for the state to finalize a new process that utilizes RTI data to identify students with learning

disabilities. The new state eligibility forms to be used in IEP (Individualized Education Plan) meetings ask for data related to RTI, but guidelines and training have yet to be provided.

Summary

Despite differences in grade levels using RTI, overall program structure, leadership, and student demographics, the five participating sites implemented the RTI framework similarly. All of the sites combined the two prevailing models of RTI from research (problem-solving and standard treatment protocol) to determine what interventions are provided at the various tiers. The core components of RTI (universal screening, progress monitoring, multi-tiered intervention system, scientifically-based core curriculum, and fidelity of implementation) are implemented in conceptually similar ways at each sites. In addition, all of the sites follow their state and/or district guidelines in terms of using data from RTI in special education eligibility decisions. The similarities in the implementations are not due to communication between the sites, as the identities of the participating sites were not revealed to the other sites until after all of the data had been collected. In addition, there is no evidence that the sites used similar documents, consultants, or other resources.

CHAPTER 5

DISCUSSION

Policy and research has identified Response to Intervention (RTI) as a recommended and promising practice for the prevention and identification of learning disabilities (LD), particularly in the area of reading. Due to the relatively new implementation of RTI, there is little research on the implementation of the framework in its entirety within the context of schools. Existing research instead focuses on the implementation of one or two of the components of RTI in isolation (e.g., Fuchs et al., 2007) or on the implementation of the entire framework within the context of a research study (with research personnel taking on many of the responsibilities related to screening, progress monitoring, and providing interventions; e.g., Vellutino, Scanlon, & Tanzman, 1998.) This study describes the implementation of RTI within the context of five different sites across the country.

Summary of Findings

Models of RTI. The first research question focused on the models of RTI implemented at the five selected sites. As discussed previously, the process for developing interventions is typically categorized into three broad classes: the problem-solving process, standard treatment protocol, and a hybrid model. While research typically treats the problem solving process and standard treatment protocol as mutually exclusive categories (e.g., Fuchs & Fuchs, 2007), the sites, as hypothesized, all used a blended approach, or hybrid model, in order to decide which interventions to provide to particular students.

Schools A, C, D, and E offered a variety of highly scripted, standardized programs at the Tier II level; the number of programs offered ranged from four to 24 (see Table 4). To determine placement in a particular intervention, the RTI leadership teams at each site used

an abbreviated or informal problem solving method (for example, at School C, students with low scores on the Phoneme Segmentation Fluency measure are automatically assigned to Road to the Code while students with low scores on the Oral Reading Fluency measure receive Quick Read.) This process is classified as the hybrid model as the RTI leadership teams place students in a particular intervention based on their needs (according to screening data), which is similar to the problem-solving method; however, all of the interventions offered were scripted, standard treatments, thus helping to assure that all students in a particular tier presumably received high quality, research-based instruction. None of the teams were observed engaging in the problem-solving process.

The widespread use of the hybrid model is notable given the apparent exclusivity of the models found in research. The hybrid model as conceptualized by the five participating sites seems to address the concerns raised in research regarding the two approaches. For example, Fuchs and Fuchs (2007) contend that the problem-solving method presents "a weaker basis for presuming that inadequate response eliminates poor instruction as the cause for insufficient learning" (p. 17). This contention is supported by research that shows that many interventions generated from problem solving were not sufficiently rigorous to increase student achievement (Rahn-Blakselee, Ikeda, & Gustafson, 2005). However, the way that the sites implement an informal problem solving process leads to the students being placed in standardized interventions. As the interventions used at all the sites (except for Tier II at School B and Tier III at School D) are highly scripted, research-based programs, the RTI leadership teams can have some confidence that they can eliminate poor instruction as a cause for an inadequate response. Similarly, the variety of the standardized programs offered

at Tier II at Schools A, C, D, and E addresses concerns that the standard protocol approach does not take into account individual student differences and needs.

Interestingly, the one site (School B) that offers only one intervention at Tier II is also the only site that does not utilize a research-based intervention at this tier (thereby preventing this site as being classified as implementing a standard treatment protocol model). All students in Tier II at School B, a middle school, use an intervention developed by the teachers based on the core curriculum in which skills, vocabulary, and concepts for the core curriculum (Houghton-Mifflin) are pre-taught and re-taught. The RTI leadership team felt that this type of intervention was more beneficial for their students as it helped the students succeed in the general education classroom, which is particularly important at the upper grade levels "where the pace is much quicker, learning is from lecture and textbook, and the vocabulary is much more specialized and dense" (National Joint Committee on Learning Disabilities, 2005, p. 12).

It is important to note that the three Tier II groups at School B do receive slightly different interventions in terms of time spent on different components. For example, one group spends increased instructional time on fluency while another spends longer time on comprehension; however, the instructional materials, activities, and strategies used are the same across all three groups. Decisions regarding the placement of students into the groups are based on the screening data. Despite these slight variations across groups, the process used to place students in Tier II at School B is the most similar to the standard treatment protocol when compared to the processes used at other sites in this study.

It appears that the standard treatment protocol and the problem-solving model lack the flexibility needed for feasible implementation within the context of schools. The

leadership teams seemed to make decisions regarding which interventions to provide at tiers based on personnel availability, resources, student need, and professional judgment rather than on adherence to one particular model. My hypothesis that the processes for developing interventions were too inflexible (as conceptualized by research) and therefore sites would use a hybrid model was proven correct. This finding can be interpreted as strong given the replication of the finding across all five sites.

Although the use of the hybrid model is noteworthy (especially in terms of the implications for future research on RTI), it is not necessarily unexpected. Several educational practices proven to be effective in research have not been applied with fidelity in the schools (e.g., Baer et al., 1987) as the conditions in research projects do not match the conditions found in the school context. Additionally, a blended model incorporating the strengths of the problem solving model and the standard treatment protocol has been recommended in the RTI literature (e.g., Batsche et al., 2006).

A finding that is unexpected, however, is the confusion that seems to exist at sites over the terms used to describe the models of RTI. For example, documents from School A state that a standard treatment protocol is used at Tier II, and the problem-solving model is employed at Tier III. However, close analysis of School A's RTI model reveal that they use a hybrid model with components of both problem solving and standard protocol at each tier. School A has a fairly sophisticated implementation of RTI, yet the leadership team still seems to demonstrate confusion regarding these terms. Similarly, School D's leadership team identifies their process as standard treatment protocol, but no less than seven interventions are offered at Tier II.

Given the finding that a hybrid model is utilized at all five sites in this study, one could argue that perhaps the language regarding the models of RTI is unimportant as the five sites seem to implement a very similar process, regardless of what they call it. However, this confusion at the school level may be the result of inadequate training on the various models of RTI, the widespread perception of the models of RTI as being a dichotomy (and thus leadership teams feel pressure to identify their schools as either standard protocol or problem-solving), or a combination of both. Whichever "camp" one falls into, the need for more research on the hybrid model is clear.

Critical components of RTI. Contrary to my hypothesis, a great deal of conceptual consistency exists across sites in how they implement the majority of the critical components of RTI. Despite differences in school-level variables, such as English Language Learners populations, interventions offered, and personnel utilized, universal screening, progress monitoring, scientifically-based core curriculum, and a multi-tiered intervention framework are implemented similarly at all five sites. This finding was confirmed across the five cases.

The sites all have stated procedures for implementing at least three screening assessments a year. Differences exist between the sites in terms of what measures are administered and who administers them; however, the general purpose of the screening data at all five sites is to determine student placement in the tiers. As with the screening assessments, all sites have established procedures for collecting progress-monitoring data. While the procedures differ, the general idea is that students who are not making adequate progress for a sufficient period of time move within the multi-tiered system so that they receive more intense instruction. Students at all five sites receiving interventions are

progress-monitored either weekly or every other week, typically by the intervention teachers. A scientifically based, reading core curriculum is offered at Tier I at all of the sites.

In addition, all five sites have a common orientation toward how tiers of instruction are organized and used. Tiers II and higher are for students receiving interventions, the major purpose of which is to accelerate students' progress so that they can achieve grade-level academic and behavioral goals. As expected, the sites varied in terms of the personnel delivering the interventions. Schools B, C, D, and E used teachers to deliver the vast majority of Tier II interventions; special education and/or reading specialists implemented Tier III (and Tier IV, if applicable). School A was the only site where educational assistants provided the interventions at all Tiers.

Although a recent report by Scammacca and colleagues (2007) synthesizing 12 high-quality research studies on extensive reading interventions found that interventions can be effective when delivered by a variety of school personnel, as long as the personnel are adequately trained to deliver the intervention, School A's practice of using educational assistants is still troubling as currently implemented as other drawbacks to having uncertified personnel administer the interventions exist. The educational assistants at School A were unclear about their roles in the site's RTI model and had difficulty explaining the model to the researcher. In addition, the educational assistants were not included in the RTI meetings at School A. Therefore, the RTI leadership team discussed students' progress in interventions without any input from the interventionists themselves, and the educational assistants confirmed that they had little or no communication with the classroom teachers regarding Tier I instruction. Although the programs used by School A at Tiers II and III were scripted (and thus could not be radically modified), the educational assistants still felt that additional

information regarding Tier I and students' progress in it would have helped their instruction at the higher tiers.

The conceptual consistency and the similarities in the implementation of these four critical components of RTI are surprising, given the differences between school-level variables at the five sites. The similarities may be explained by the large body of research that has been conducted on each of the components in isolation (e.g., Davis et al., 2007; Foorman et al., 1998). Practices regarding the administration of screening and progress monitoring measures are well-established, particularly in the area of early reading. The passage of No Child Left Behind legislation and the establishment of the Reading First initiative encouraged (or forced) schools to adopt scientifically-based core curricula. The language of RTI in terms of multi-tiered instruction may be relatively new; however, the concepts and features of RTI are not (Roberts, 2007). Indeed, the RTI leadership teams at all five sites commented that they had been implementing at least one of the components before the formal adoption of RTI at their respective campuses.

The five sites implemented universal screening, progress monitoring, a scientifically-based core curriculum, and multi-tiered instructional system similarly; however, the sites varied in their approaches to fidelity of implementation. The RTI leadership teams appear to recognize the importance of providing effective instruction within each tier by implementing programs as intended and using effective instructional principles to teach the program. However, monitoring fidelity is a challenge for all of the sites as all the teams report that fidelity of implementation is an area that needs improvement.

None of the sites appear to have integrated systems wherein instruction can actually be ruled out as a possible cause of inadequate progress, either through low implementation

fidelity or poor instructional delivery, or a system that determines if the RTI framework was implemented with fidelity. Instead, fidelity is framed only as it relates to the actual implementation of the interventions (commonly referred to as fidelity of treatment) rather than as it relates to the overall implementation of the RTI framework and processes. Other facets of fidelity of implementation include the application of entry/exit criteria to determine placement in and movement between the tiers, and the appropriate administration of screening and progress monitoring measures.

It is unlikely that sites are moving toward this level of sophistication in their monitoring of fidelity. For example, School A implements formal fidelity of treatment checks at all intervention levels, but it does not have a formal system for evaluating the fidelity of implementation. The model and process at School A are clearly outlined in several places in school documents (the leadership team at School A has presented on RTI at several regional and national conferences); therefore, it is surprising that School A has not taken this next step.

Inherent in the framing of fidelity as fidelity of implementation as opposed to fidelity of treatment is the assumption that fidelity of all of the components will be assessed. In other words, RTI leadership teams should determine if screening and progress monitoring, for example, are administered according to guidelines. At the present time, none of the five sites implemented fidelity checks on any other component besides instructions in the Tiers.

However, fidelity checks on the RTI components in isolation are not enough. To paraphrase VanDerHeyden and colleagues (2007), if all the components are administered with fidelity, then theoretically the entire framework will be administered with some level of fidelity. However, this is not always the case; therefore, the fidelity of the process as a whole

must also be assessed. This reframing of fidelity is particularly important in light of research findings that a student's assessment data and the assessment team's decision on referrals for special education evaluation do not always correspond (VanDerHeyden et al., 2007). The effectiveness of RTI "can be assessed only to the extent that [fidelity of implementation] occurred" (Noell & Gansle, 2006, pg. 33). For the sites that are using data from RTI as a source of evidence in special education eligibility decisions, the lack of measures of the fidelity of all of the components and the process as a whole is particularly troubling, as RTI was initially conceptualized by some researchers as an improved way of identifying students with learning disabilities.

In order to assess if the components of RTI and the process as a whole have been implemented with fidelity, schools and/or districts could develop a checklist outlining the entire process and combine the use of this checklist with the use of intervention-specific and/or measure-specific fidelity measures. For example, a school could assess the fidelity of the administration of screening and progress monitoring measures using assessment-specific fidelity checklists (e.g., Were the instructions given according to protocol? Were the testing conditions appropriate? Was the measure scored accurately?). The RTI leadership team could randomly select a small number of screening and progress monitoring administrations on which to assess fidelity, so the task does not overwhelm the capacity of the team. Similarly, the RTI leadership team could monitor the interventions periodically to assess if they are delivered according to program guidelines. Many commercially-developed interventions are now including fidelity measures in their materials.

The implementation of the overall process of RTI could be assessed for fidelity with a procedure fidelity checklist (see Appendix L for an example). The main purpose of this

checklist would be to determine if the school has followed all of the designated steps; in other words, the form would force the school to ask itself, " Did we implement our RTI process fully and completely for this particular student?" Items could include the entering of dates and scores of the screening measure, date of notification of parents, dates of Tier II intervention, whether or not fidelity of that student's Tier II intervention was assessed, dates of Tier III intervention, etc. A separate form would be filled out for each student and could be kept with that student's screening and progress monitoring data. The use of this type of form would assist schools in determining if a student's lack of progress is truly due to a learning disability as opposed to inadequate instruction.

RTI and identification. As hypothesized, the sites' approaches to the use of RTI data and processes in special education eligibility decisions reflect the ambiguity surrounding this issue in research. The RTI leadership teams at each of the five sites identified the primary driver of RTI implementation at the school level as comprehensive school reform rather than introduction of a new method of identifying students with learning disabilities. This emphasis was evident in discussions with teachers at each site as teachers at all sites defined RTI as involving all students as opposed to involving only a subset of at-risk or special education students. Teachers at School D were not even aware that RTI could be used in the identification process.

The leadership teams at all of the sites follow state and/or district guidelines regarding the use of RTI data and processes in eligibility decisions. Although members of the leadership teams at Schools B and D expressed frustration that their state educational agencies had not yet provided guidance regarding the role of RTI data in the identification of learning disabilities, neither team reported using RTI data in evaluations for special

education eligibility. Therefore, concerns regarding the lack of consistency in how LD identification is operationalized (Griffiths et al., 2007) may be unfounded at the school level.

Implications for Future Research

One of the most consistent comments about RTI among researchers and other key stakeholders is that while there may be considerable research on each of the components of RTI, there is very limited research on the implementation of the components as part of a model. While schools across the country are beginning to implement RTI, little is known regarding these implementations. This study addresses that gap by describing the implementation of RTI in reading at five sites across the country. However, more research is needed regarding the efficacy and implementation of RTI as an entire framework. The parts have been well researched and documented; it is time to study the sum.

According to the findings of this study, the hybrid model of developing and/or selecting appropriate interventions at Tier II and above seems to be implemented more often than would be expected given research's focus on standard treatment and/or problem-solving. Schools are using the hybrid model; however, researchers have largely ignored this model. Research on the design and effectiveness of hybrid models needs to be conducted. Another area for further investigation involves the reasons behind the use of the hybrid model by schools. The findings of this study seem to suggest that school leadership teams are unaware that they are implementing a hybrid model, thus they are not explicitly selecting the hybrid model over the other two models. Is this confusion due to a lack of understanding regarding the models or a perceived pressure to identify the model as either standard protocol or problem-solving?

Another implication for future research involves the fidelity of implementation. No sites included in this study had any process for assessing the fidelity of most components of RTI nor the overall framework. Although research has been conducted that shows that the individual components must be implemented with fidelity (e.g., Gresham, MacMillan, & Beebe-Frankenberger, 2000), it is unknown if RTI will be ineffective in preventing the development of reading difficulties or correctly identifying students as having reading disabilities if the framework is not implemented as designed. In other words, for RTI to be successful, must it be implemented with fidelity? Common sense would affirm this notion, and studies in other areas have indicated that decreases in fidelity of implementation are associated with poorer treatment outcomes (e.g., Holcombe, Wolery, & Synder, 1994; Noell, Gresham, & Gansle, 2002). Research examining the extent to which fidelity of implementation affects the overall effectiveness of RTI is needed.

Since research data was collected, two of the sites in this study have undergone changes in administration. Research on other school reform models has shown that changes in school administration can be fatal to the implementation of school reforms (e.g., Datnow, 2005). Following the progress of these two sites' implementations of RTI would be valuable to determine whether the implementation of RTI is affected by the changes in leadership.

Implications for Educators

Given this study's on the implementation of RTI in reading within the context of schools, this study raises several implications for educators. The findings suggest that RTI was implemented similarly at all five sites, despite differences in several school-level variables. The implementation of screening, progress monitoring, scientifically-based core curriculum, and a multi-tiered system of instruction were all implemented as they were

conceptually developed. Differences in implementation, of course, existed; however, the implementation of the components had more similarities to each other and to the models described in the literature than differences. These findings suggest that implementation of the critical components of RTI can be similar across a range of schools with different grade groupings and demographics.

Implications for preparing future and current educators for effectively implementing RTI include ensuring teachers have the knowledge and skills to implement the critical components of RTI (universal screening, progress monitoring, scientifically based core curriculum, multi-tiered system of instruction, and fidelity of implementation). With a firm background in the conceptual foundations of each of these components, current and future teachers should be able to adapt the practices to reflect any differences at the school level (such as personnel and resource availability).

For districts determining how RTI should be implemented at various schools, this finding suggests that a district-wide framework of RTI may be appropriate. However, it is important to note that the components were implemented similarly conceptually but were not necessarily identical. For example, the sites differed in terms of what screening measures were administered and what personnel provided the interventions. Those decisions seem to be made by taking school level variables into consideration. A district-level RTI framework could require schools to screen their students during three predetermined time periods then follow district procedures for analyzing the data and placing students in interventions; schools, however, could determine the personnel used to administer the screening measures.

Another implication of this study is that educators must determine how to best construct a hybrid model for deciding which interventions to provide at each tier. Ideally,

educators would wait to adopt a hybrid model until research on its efficacy has been completed. However, that scenario is not feasible for the vast majority of schools. In lieu of research on hybrid models, educators may need to have a more in-depth understanding of how problem-solving and the standard treatment protocol are implemented in research studies. Educators can then select which components of each are the most appropriate for their schools, depending on school personnel, availability of intervention resources, and staff capacity. Future educators need sufficient knowledge and skills for implementing both models (standard treatment protocol and problem solving model); teacher preparation programs should spend adequate instructional time on both models given the finding that all five sites implemented a combination of both models.

Limitations

Case studies, like other research methodologies, have inherent limitations. Steps were taken as described below to address construct validity, external validity, and reliability. However, it is important to note that the attempts to address these limitations can merely minimize and not eliminate them.

Construct validity. Yin (2003) regards construct validity (the confidence one can have that the data sources measure the phenomena they are intended to measure) as a potential weakness of the case study design. Critics of the design argue that the findings are often the result of subjective judgments on the part of the researcher. To increase the construct validity of this study, two strategies were utilized: the use of multiple sources of data and a "member check." By using multiple sources such as direct observations, interviews and documents, this study was enhanced through the triangulation of data, which "essentially provide(d) multiple measures of the same phenomenon" (Yin, 2003, p. 99). In addition, members of

each site team had the opportunity to review their site's case study as a type of "member check." By having the participants read and review their individual site reports, the adequacy of the site reports were confirmed (Miles & Huberman, 1994). The use of member checks and multiples sources minimized the threats to construct validity, but ultimately the findings are the result of judgments on the part of the researcher.

External validity. The second limitation concerns external validity, or the ability to generalize findings beyond the selected sites (Miles & Huberman, 1994). Often, researchers are able to increase the generalizability of their findings by increasing the sample size. This logic, however, does not apply to case study methodology (Yin, 2003). Rather, the use of replication logic, similar to the logic used in experiments, is appropriate. Replication logic refers to the idea that when similar findings are found across cases (or experiments), the findings can be considered more robust and, thus, more generalizable. If the findings from each of the five cases in this particular study are similar and thus replicate the same hypothesis, one can be more confident in the external validity of these findings. The replication of all three hypotheses across the five cases increases the confidence one can have in their generalizablity.

However, concerns regarding the application of these hypotheses to any school outside of the sample do remain. The participating sites were not chosen randomly from all schools in the country or even from all schools implementing RTI. Rather, a panel of experts for inclusion in this study purposely chose the five sites. Two of the sites (Schools A and D) are located in districts that have been recognized for their efforts in RTI implementation; Schools C and D were part of state or regional pilots of RTI. Only School B began implementing RTI without outside assistance. Therefore, it is important to keep in mind

these findings are representative only of schools that are implementing RTI with some degree of rigor. The findings of this study may not describe the experiences or implementation in schools that are just beginning to implement RTI or are implementing RTI in less than favorable conditions (e.g., unsupportive administration, high teacher turnover).

Reliability. "The goal of reliability is to minimize the errors and biases in the study" (Yin, 2003, p. 37). The Data Collection Protocol (Appendix E) was developed to ensure that the same procedures for collecting data were used for each case. By using the same data collection procedures in each case, bias or error in the data collection was minimized. This protocol also ensures that the case studies themselves can be replicated in the future. In addition, a case study database was created which contains all relevant measures, notes, and documents and may be used by other researchers to replicate this study's findings.

Summary

Two out of three hypotheses were proven correct. As hypothesized, the five sites adopted a blended approach (the hybrid model) to developing and selecting interventions. The use of the hybrid models seems to reflect the inability of the standard treatment protocol and problem solving models to be flexible enough to address the context of schools. In addition, the sites' approaches to the use of RTI data in special education eligibility decisions reflect the ambiguity that exists surrounding this issue in research. Contrary to my hypothesis, a great deal of conceptual consistency exists across sites in how they implement the majority of the critical components of RTI. Despite differences in school-level variables, such as English Language Learners populations, interventions offered, and personnel utilized, universal screening, progress monitoring, scientifically-based core curriculum, and a multi-tiered intervention framework are implemented similarly at all five sites.

The implementation of RTI at the five participating sites seemed to reflect the body of research literature regarding RTI. For example, four of the critical components of RTI (universal screening, progress monitoring, scientifically-based core curriculum, and a multi-tiered system of interventions) were implemented with conceptual consistency across sites. This finding is not surprising, as a large amount of research has been conducted on these components in isolation. In addition, the findings regarding the lack of fidelity of implementation checks are not surprising as this may be the least researched (and therefore least implemented) component of RTI.

Where the sites seem to diverge from research is in implementation of particular models of RTI. Research treats standard protocol and the problem-solving method as mutually exclusive; the sites included in this study implemented a hybrid of these two models. An explanation of this divergence may lie in the fact that the majority of studies on the two models of RTI were in the context of research studies (as opposed to field-based studies such as this one).

One noteworthy finding is that while the implementation of the components of RTI by the included sites were akin to the implementation of the components as documented in the research, the processes often used to drive RTI were divergent from those documented in the research literature. This may be due to the fact that the "research conducted to date has focused primarily on the efficacy of the components *individually* but not on… the *RTI process as an integrated whole*" (italics in the original; VanDerHeyden et al., 2007, pg. 226). Despite the limitations inherent in a case study, this study adds to the literature base regarding the implementation of RTI as the sum of its parts.

Tables.

Table 1. *Summary of Participating Sites*

School	**State**	**Grades**	**Total Student Population**	**Free and Reduced Lunch**	**English Language Learners**
A	Oregon	K - 5	608	56%	38%
B	Wisconsin	5 - 6	529	13%	1%
C	Pennsylvania	K - 4	500	44%	1%
D	Florida	K - 5	480	56%	3%
E	California	6 - 8	870	50%	22%

Table 2. *Start Codes*

Model Type	MT
MT: Problem-Solving	MT- PS
MT: Standard Protocol	MT-SP
MT: Hybrid	MT-H
Research-Based Practices	RBP
RBP: Core Curriculum	RBP – CC
RBP: Universal Screening	RBP- US
RBP: Progress Monitoring	RBP- PM
RBP: Multi-tiered System	RBP – MTS
RBP: Fidelity of Treatment	RBP- FT
Learning Disabilities Identification	LD/ID
LD/ID: Processes	LD/ID - P
LD/ID: Data Sources	LD/ID – DS
LD/ID: Discrepancy	LD/ID- D

Table 3. *Revised Codes*

Model Type	MT
MT: Problem-Solving	MT- PS
MT: Informal Problem-Solving	MT-INPS
MT: Standard Protocol	MT-SP
MT: Scripted Intervention Programs	MT-SIP
MT: Hybrid	MT-H
Research-Based Practices	RBP
RBP: Core Curriculum	RBP – CC
RBP: Universal Screening	RBP- US
RBP: Progress Monitoring	RBP- PM
RBP: Multi-tiered System	RBP – MTS
RBP: Fidelity of Treatment	RBP- FT
RBP: Fidelity of Implementation	RBP - FI
Learning Disabilities Identification	LD/ID
LD/ID: Processes	LD/ID - P
LD/ID: Data Sources	LD/ID – DS
LD/ID: Discrepancy	LD/ID- D
LD/ID: State Guidelines	LD/ID - SG
LD/ID: District Guidelines	LD/ID - DG

Notes. DIBELS: Dynamic Indicators of Basic Early Literacy Skills. CBMs: Curriculum-based measurements.

Table 4. *Matrix of Components of RTI Implementation*

School	Grades	RTI Leadership Team	Model	Tier I	Tier II
A	K–5	principal, school counselor, literacy specialist, special education representative, ELL representative, a representative from each grade level	Hybrid	**Curricula used:** Success for All **Length of instruction:** K – 60 minutes daily; 1 through 5 – 90 minutes daily	**Curricula used:** approximately 24 different programs, including Read Naturally, Reading Mastery, Phonics for Reading, and REWARDS **Length of instruction**: daily for 20-45 minutes **Progress monitoring tools and procedures**: DIBELS administered weekly; measures administered and scored by intervention teachers **Data-based decision making procedures:** progress monitoring data are reviewed at monthly RTI team meetings. Intervention is changed if a student does not show growth after one month of intervention. Two Tier II interventions are conducted before referring to Tier III. Students exit Tier II after demonstrating growth along a predetermined aim line for at least one month **Personnel used**: educational assistants
B	5–6	lead special education teacher, reading specialist, and school psychologist	Hybrid	**Curricula used:** Houghton-Mifflin **Length of instruction**: 90 minute daily period for English/Language Arts	**Curricula used:** Core curriculum is pretaught or retaught **Length of instruction:** Every other day for 45 minutes **Progress monitoring tools and procedures:** Maze passages and DIBELS ORF administered biweekly **Data-based decision making procedures:** Students move out of Tier II when they reach grade level on progress-monitoring measures **Personnel used:** ELL specialist, speech and language pathologist, special education teacher, Title I teacher, and reading specialist
C	K–4	principal, math and literacy coach, grade-level representative, school psychologist,	Hybrid	**Curricula used:** Houghton-Mifflin **Length of instruction:** 90 minutes	**Curricula used:** Enrichment provided to students performing above grade level. Additional instruction in small groups using extensions of core curriculum provided to students performing at grade level. Remedial instruction based on skill deficits provided to students performing below grade level using Road to the Code, Project Read, Quick Read, and Corrective Reading **Length of instruction**: Daily for 30 minutes

		counselor, special area teacher			**Progress monitoring tools and procedures:** DIBELS administered biweekly **Data-based decision making procedures:** RTI leadership team meets monthly to review data and assess interventions **Personnel used:** General education teachers, educational assistants, speech and language pathologist, and special area teachers
D	K–5	assistant principal, speech and language pathologist, reading coach, school psychologist, and student support/behavior specialist	Hybrid	**Curricula used:** Harcourt Trophies **Length of instruction**: 90 – 120 minutes	**Curricula used:** PALS, Rewards, STARS, Extensions for Reading, Quick Reads, Vocabulary!, K-PALS, depending on student need and goals **Length of instruction:** Four times a week for 30 minutes **Progress monitoring tools and procedures**: Weekly administration of ORF and Maze passages **Data-based decision making procedures:** RTI leadership team meets every 6 weeks to analyze data with grade-level teachers **Personnel used:** General education teachers
E	6–8	principal, speech and language pathologist, school psychologist, and grade level teachers	Hybrid	**Curricula used:** Holt Reinhart and daily fluency instruction using Six Minute Solution during homeroom **Length of instruction:** 72 minutes daily, plus instruction during homeroom	**Curricula used:** Read Naturally, Soar to Success, and REWARDS **Length of instruction:** Every other day for 72 minutes **Progress monitoring tools and procedures:** Curriculum based assessments as determined by the program **Data-based decision making procedures:** Students move between interventions based on improved progress-monitoring scores with decisions made on an individual basis throughout the year. Students exit tier at end of a trimester if appropriate progress has been achieved **Personnel used:** General education teachers, resource teacher, instructional specialists

Sites	Tier III	Tier IV	Fidelity of Treatment Checks?	Use RTI in LD Identification?
A	**Curricula used:** Approximately 24 different programs, including Read Naturally, Reading Mastery, Phonics for Reading, and REWARDS **Length of instruction**: Daily for 30-45 minutes **Progress monitoring tools and procedures:** DIBELS administered weekly; measures administered and scored by intervention teachers **Data-based decision making procedures:** progress monitoring data are reviewed at monthly RTI team meetings. Students who do not show growth after receiving two Tier III interventions are referred to special education. Students exit Tier II after demonstrating growth along a predetermined aim line for at least one month **Personnel used:** Educational assistants	NA	Yes	Yes
B	**Curricula used:** Houghton Mifflin Soar to Success/Houghton Mifflin Phonics Intervention **Length of instruction:** Daily for 45 minutes **Progress monitoring tools and procedures**: Maze passages and DIBELS ORF administered weekly **Data-based decision making procedures:** Students exit Tier III based on improvement to predetermined level on progress monitoring measures and approval of general education teacher; usually exit at semester break **Personnel used:** ELL specialist, speech and language pathologist, special education teacher, Title I teacher, and reading specialist	**Curricula used:** Individualized intervention **Length of instruction:** Daily for 45 minutes **Progress monitoring tools and procedures:** Maze passages and DIBELS ORF administered weekly **Data-based decision making procedures:** Students exit Tier IV based on improvement to predetermined level on progress monitoring measures and approval of general education teacher; usually exit at semester break **Personnel used:** special education teacher, and reading specialist	No	No

C	**Curricula used:** Road to the Code, Project Read, Quick Read, and Corrective Reading **Length of instruction:** Daily for 30-60 minutes **Progress monitoring tools and procedures**: DIBELS administered weekly **Data-based decision making procedures:** RTI leadership team meets monthly to review data and assess interventions **Personnel used:** Reading Specialist	NA	No	Yes
D	**Curricula used:** students continue to participate in Tier II **Length of instruction:** Daily for 144 minutes (in place of Tier I) **Progress monitoring tools and procedures:** Weekly administration of ORF and Maze probes **Data-based decision making procedures:** RTI Leadership team reviews progress-monitoring data weekly to determine whether student can return to Tier II or be referred for special education **Personnel used:** Grade level teacher, RTI Leadership team	**Curricula used:** various intervention programs, including Rewards, STARS, Extensions for Reading, Quick Reads, and Vocabulary **Length of instruction**: Daily **Progress monitoring tools and procedures:** Weekly administration of ORF and Maze probes **Data-based decision making procedures:** Data are used by the IEP team in writing IEP goals and conducting student re-evaluations **Personnel used**: Special education teachers	Yes	No
E	**Curricula used:** Language!, Read 180, High Point **Length of instruction:** Daily for 20-45 minutes **Progress monitoring tools and procedures:** Curriculum based assessments as determined by the program **Data-based decision making procedures**: Students exit Tier III after progressing to within two grade levels of reading expectations **Personnel used:** Reading specialist and special education teacher	NA	No	Yes

Note: DIBELS = Dynamic Indicators of Basic Early Literacy Skills; ORF = Oral Reading Fluency; NA = Not Applicable; IEP = Individualized Education Plan

Table 5. *Summary of Screening Measures*

School	Grades	Screening Measures	Frequency of Administration
A	K–5	DIBELS – Reading	4 times a year
B	5–6	Maze Passages – Reading Oral Reading Fluency – Reading	3 times a year 3 times a year
C	K–4	DIBELS – Reading 4Sight Assessments –Reading (for 3rd- and 4th-graders only)	3 times a year 5 times a year
D	K–5	State Assessments – Reading Oral Reading Fluency – Reading Maze Passages – Reading	3 times a year 3 times a year 3 times a year
E	6–8	Oral Reading Fluency – Reading San Diego Quick Assessment – Reading Scholastic Reading Inventory – Reading CBMs – Reading	3 times a year 3 times a year 3 times a year 3 times a year

Appendix A:

Annotated Bibliography of Response to Intervention

Appendix A. Annotated Bibliography of Response to Intervention

Heller, K. A., Holtzman, W. H., Messick, S. (1982). *Placing children in special education: A strategy for equity.* Washington, DC: National Academy Press.

- The Panel on Selection and Placement of Students in Programs for the Mentally Retarded was convened in 1979 by the Committee on Child Development Research and Public Policy of the National Research Council to examine the disproportionate representation of students from culturally and linguistically diverse (CLD) backgrounds and males in special education.
- The Panel confirmed that students from CLD backgrounds and, to a lesser extent, males were overrepresented in the educable mentally retarded (EMR) category. Rather than looking at the causes of this overrepresentation, the panel instead focused on *why* disproportionality was problematic.
- They found that placement in the EMR category was problematic only when students "have been invalidly referred and assessed for special education placement" or "have received instruction of inferior quality" (p. 92).
- The first of six recommendations made by the Panel argued that it was the "responsibility" of general education teachers to ensure that students receive "multiple educational interventions" within the general education setting and that the outcomes of these interventions are tracked prior to a student being referred for special education (p. 95).
- "The child who has been unable to learn under certain conditions of instruction in the regular program should not be judged as unable to learn under any conditions of regular instruction until a variety of such strategies have been attempted and demonstrated to be unsuccessful" (p. 95).

Donovan, M. S., & Cross, C. T. (2002). *Minority students in special and gifted education.* Washington, DC: National Academy Press.

- The Committee on Minority Representation in Special Education was convened at the behest of the Office of Special Education and Rehabilitation Services to study minority representation in special education and in gifted and talented programs.
- The Committee found that "the subjectivity of the referral process" resulted in little confidence that the appropriate students were being identified for special education placement in the most "effective or efficient" manner (p. 5).
- Disproportionality in special education may be addressed by providing high-quality, research-based interventions within the general education setting prior to referral to special education.
- The use of IQ testing in special education eligibility criteria is problematic for several reasons: results are "largely unrelated" to the design or implementation of academic or behavior interventions (p. 284), the misuse of the IQ construct through the assumption by many educators that IQ is an innate ability that remains fixed, and the

reliance on an "arbitrary" discrepancy between achievement and IQ that is not standard across the country (p. 285).
- "Improved universal screening, prevention, and early intervention processes… should, in the committee's view, be essential prerequisites to any consideration of student referral to special education" (p. 299).

Batsche, G., Elliott, J., Graden, J. L., Grimes, J., Kovaleski, J. F., Prasse, D., et al. (2006). *Response to intervention: Policy considerations and implementation.* National Association of State Directors of Special Education, Inc. Alexandria, VA: Author.

- The purpose of this document is to provide assistance to state and local education agencies regarding the design and implementation of RTI.
- RTI is defined as "the practice of providing high-quality instruction and interventions matched to student need, monitoring progress frequently to make decisions about changes in instructions or goals and applying child response data to important educational decisions" (p. 3).
- Topics covered in the book include the foundations of RTI, discussion of IDEA, core principles, and essential components of RTI.
- Three components are described as "essential" to RTI; a multi-tiered intervention service delivery model, the problem-solving method, and an integrated data collection/assessment system.

U.S. Department of Education Office of Special Education and Rehabilitative Services (2002). *A new era: Revitalizing special education for children and their families,* Washington, DC: Author.

- Convened by President Bush in 2001, the President's Commission on Excellence in Special Education held a series of open hearings regarding special education.
- In response to the findings from the hearings, the Commission issued this report summarizing their recommendations for improving special education.
- In addition to the overarching theme that the principles of the No Child Left Behind Act need to be applied to the reauthorization of IDEA, the Commission found three major findings:
    - Special education must focus on results and not on the process.
    - The overarching model of special education should be one of prevention and not remediation.
    - The integration of general education and special education is paramount.
- "The Commission' findings parallel the work of the National Research Council report on minority students in special education, which found that early screening followed by effective interventions in the classroom prevented many disabilities" (p. 23).
- A specific recommendation made by the Commission was to incorporate Response To Intervention during the identification process.

Appendix B.

Consent Form

Appendix B. Consent Form

Informed Consent to Participate in Research

The University of Texas at Austin

You are being asked to participate in a research study. This form provides you with information about the study. The Principal Investigator (the person in charge of this research) or his/her representative will also describe this study to you and answer all of your questions. Please read the information below and ask questions about anything you don't understand before deciding whether or not to take part. Your participation is entirely voluntary and you can refuse to participate without penalty or loss of benefits to which you are otherwise entitled.

Title of Research Study: Response to Intervention (RTI) Exemplary Practices

Principal Investigator(s) (include faculty sponsor), UT affiliation, and Telephone Number(s):
Greg Roberts, Ph.D., Vaughn Gross Center for Reading and Language Arts, (512) 475-6654, gregroberts@austin.utexas.edu

What is the purpose of this study?
- Identify schools that are implementing components of Response to Intervention
- Survey institutional policies of identified schools
- Identify and document promising practices as well as perceived barriers in the implementation of Response to Intervention at the school and district levels

What will be done if you take part in this research study?
Your participation in this research will involve completing a survey concerning your school's Response to Intervention (RTI) instructional model.

What are the possible discomforts and risks?
There is no foreseeable discomfort or risk associated with your participation in this research.

What are the possible benefits to you or to others?
This research will provide no direct benefit to you. By participating, you will add to the knowledge base regarding exemplary practices of RTI.

If you choose to take part in this study, will it cost you anything?
There is no cost to you in participating in this study.
Will you receive compensation for your participation in this study?
You will not be compensated for your participation in the phone interview.

If you do not want to take part in this study, what other options are available to you?
Participation in this study is entirely voluntary. You are free to refuse to be in the study, and your refusal will not influence current or future relationships with The University of Texas at Austin.

How can you withdraw from this research study and whom should I call if I have questions?

If you wish to stop your participation in this research study for any reason, you should contact: Kathryn Klingler Tackett at (512) 471-2330. You are free to withdraw your consent and stop participation in this research study at any time without penalty or loss of benefits for which you may be entitled. Throughout the study, the researchers will notify you of new information that may become available and that might affect your decision to remain in the study.

In addition, if you have questions about your rights as a research participant, please contact Lisa Leiden, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects, 512/471-8604.

How will your privacy and the confidentiality of your research records be protected?
Any identifying information about you will be kept separate from your completed survey. Your name will not be associated with your responses to the survey. The name of your school will be associated with your responses only if your school is selected to participate in future activities as part of this project.

Authorized persons from The University of Texas at Austin and the Institutional Review Board have the legal right to review your research records and will protect the confidentiality of those records to the extent permitted by law. If the research project is sponsored then the sponsor also has the legal right to review your research records. Otherwise, your research records will not be released without your consent unless required by law or a court order.

If the results of this research are published or presented at scientific meetings, your identity will not be disclosed.

Signatures:

As a representative of this study, I have explained the purpose, the procedures, the benefits, and the risks that are involved in this research study:

Signature and printed name of person obtaining consent **Date**

You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this Form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights.

_____

Printed Name of Subject **Date**

_____

Signature of Subject **Date**

_____

Signature of Principal Investigator **Date**

Appendix C:

RTI Exemplary Practices Phone Survey Protocol

RTI Exemplary Practices
Phone Survey Protocol RVSD

Name of School District or Agency _____

Name of School

Name of Person Completing Survey: _____

Title/Position: _____

Mailing address: _____

City _____ **State _____ZIP _____**

Phone: _____ **Fax: _____** **Email: _____**

Name of Primary Contact Person (if different): _____

Title/Position: _____

Mailing address: _____

Phone: _____ **Fax: _____** **Email: _____**

(This information will be removed when the survey is reviewed)

➢ Part I: Site Information

Demographic Information for 2005-2006

Student population (size) at site	
Percent of students on free/reduced lunch	
Percent of students who are ELL	
Percent of students served in Special Education	
Percent of students identified as having a Specific Learning Disability	
Per pupil funding	
What percentage of your students (per grade) are proficient on your screening measure?	
Is this a Reading First School?	☐Y ☐N
Is this a Title I school?	☐Y ☐N

Directions: Begin with question 1. If answer provided is at an exemplary level, proceed with remaining questions in order.

If the answer provided to question 1 describes an implementation that is clearly deficient in the basic features of RTI, skip to subsequent Level I questions (7, 12, 13, 16). After recording answers, decide whether remaining Level II questions should be administered. If no, end interview.

➢ Part II: RTI Model

1. **Level 1: Describe your RTI model.**
   Prompt if not specified:
   - *Grade levels to which the model applies*
   - *Subject areas to which the model applies*

Consensus Building

2. Level II: What challenges have you encountered with your staff since implementing RTI at your school?

3. Level II: How did you train staff (new and reassigned) so that they would have a sufficient understanding of RTI?

- Methods of RTI implementation
- Goals and purpose of RTI

Leadership

4. Level II: Describe the individuals involved in implementing your RTI framework.

Beginning Implementation

5. Level II: Why did you decide to implement an RTI framework?

6. Level II: Did you consult/collaborate with someone in developing your RTI Model? Who?

Data Collection/Management

7. Level I: Describe your screening and progress monitoring system.

Prompt if not specified:

- *Who is assessed*
- *What measures are used*
- *How often assessments are administered*
- *How is the data utilized in making instructional decisions*

8. Level II: Who collects your screening and progress monitoring data?
   - What kind of training was provided?
   - How do you ensure that data is collected accurately?

9. Level II: Do you use any kind of electronic resources to manage your screening and progress monitoring data after they are collected?
   - Who can access the data?
   - Do you generate reports? If yes, what kind?

Data-Based Decision-Making

10. Level II: How does your school identify children who are at risk?

11. Level II: What happens after it is determined that a student is at risk?

Professional Development

12. Level I: Describe the professional development that occurred related to RTI.

Prompt if not specified:

- *Topics*
- *Frequency*

Core Curriculum

13. Level I: Describe your core curriculum.

14. Level II: Describe how you ensure that your core curriculum is sufficient (i.e., meeting the needs of at least 80% of student population)?

15. Level II: What was your process for selecting the academic content and instructional strategies used in your core curriculum?

Intervention

16. Level I: Describe any interventions you use.

- *Instructional approaches*
- *Who conducts intervention*
- *Location of intervention*
- *Frequency and duration*
- *Entry/exit criteria*

17. Level II: What was your process for selecting the academic content and instructional strategies used in your intervention(s)?

Fidelity

18. Level II: Describe the process your school follows to ensure instructional implementation is consistent and effective in each "tier" (or level if school does not use a tiered RTI framework) (including general education).

Supplemental Information
(Will not affect the selection of a school)

LD Identification

19. Do you use RTI to determine eligibility for special education, and more specifically, the learning disability designation?

19a. (If yes) At which grade levels is RTI used for eligibility?

19b. (If yes) What information is used to determine eligibility?

19c. (If yes) What additional assessment procedures (if any) following lack of progress are used to determine learning disability?

Strengths

20. What components of RTI at your school would you identify as strengths?

Appendix D.

Example of Site Selection Report

Appendix D. Example of Site Selection Report

School A is an elementary (K-5) school in the West.

Demographic Information for 2006-2007

Student population (size) at site	608
Percent of students on free/reduced lunch	56%
Percent of students who are ELL	38%
Percent of students served in Special Education	10%
Percent of students identified as having a Specific Learning Disability	3.8%
Per pupil funding	$8 100
What percentage of your students (per grade) is proficient on your screening measure?	K – 88% 1 – 71% 2 – 66% 3 – 91% 4 – 81% 5 – 85%
Is this a Reading First School?	N
Is this a Title I school?	Y

Background

Prior to implementing RTI, School A used the Emotional/Behavioral Instructional Support (EBIS) model to support students having behavior difficulties. The administration wanted a similar data-driven system for support students struggling academically. RTI fit well into their existing EBIS framework and encouraged all teachers to take responsibility for all the students' progress. Additionally, School A found that parents supported the use of RTI.

RTI Model

School A has integrated RTI in reading, writing and mathematics into their existing EBIS (behavioral) framework. They use a 3 Tier model for reading, writing, mathematics, behavior and attendance.

Core Curriculum. All students receive Tier I instruction in the general education classroom**.** Success for All is the core curriculum in reading. Students are grouped homogenously for reading instruction. McGraw Hill is the core curriculum for math at all grade levels.

Professional Development. School leaders (including the principal, literacy specialist, special education teacher, and one teacher from each grade level) were trained by the district and are responsible for bringing the information back to campus. Ongoing formal professional development is offered through inservice days three times a year. Topics include progress monitoring, data analysis, and refreshers on the overall RTI model.

All teachers were trained on implementing the core curriculum in all subject areas by product consultants. In addition, teachers are trained on various packaged intervention programs. The school hired a writing specialist this year to help teachers develop and implement writing interventions.

Because the district is seen as a leader in terms of RTI implementation in the country, the leadership team at School A has presented at conferences and consulted with other schools interested in implementing RTI.

Screening. Screening assessments are administered every eight weeks. DIBELS is used for screening in reading with the literacy specialist, Title I teachers & assistants administering the measures. Assessments embedded in the core math curriculum are as

screening measures in math. State-developed writing prompts are administered to screen in writing; the students' products are scored using the state rubric. The classroom teachers collect Writing and mathematics data. Universal screening also occurs for behavior using various grade-appropriate measures.

Progress Monitoring. DIBELS is used as weekly progress monitoring measure for students receiving reading interventions. Teacher written tests are administered weekly in the math intervention groups. Student papers are collected and scored on a monthly basis by the intervention teacher using the state rubric. Students receiving behavior interventions are progress monitored using the 1st Step assessment. The principal monitors attendance data.

Data Use and Management. Teachers meet by grade level weekly to plan instruction and analyze the data. The RTI team (the principal, school counselor, literacy specialist, special education representative, ELL representative, and select grade level teachers) meet monthly to discuss the progress of students performing in the bottom 20% of all students in the areas of mathematics, writing, reading, behavior, & attendance. Teachers who have students in the bottom 20% percent present the student's data to the RTI team during these meetings. The progress monitoring data is examined and students are exited if the student has demonstrated growth along a predetermined aim line for at least one month. If a student fails to show growth after receiving an intervention for a month, the intervention will be changed. Typically students will receive two different Tier II interventions before being referred to Tier III. If students continue to fail to make progress in two different Tier III interventions, the student will be referred to special education.

Currently, School A uses an electronic management system provided by the state university. In addition, the literacy specialist also keeps track of some data using Excel. All

School A staff members have access to all the data. Classroom and individual student reports are created, disseminated to the RTI team and classroom teachers, and discussed at the monthly team meetings.

Tier II Interventions. Tier II interventions are offered daily and last between 20 and 45 minutes. Generally, the classroom teacher will select the appropriate intervention for students using the data and provide the intervention in small groups. Programs used for reading interventions include Read Naturally, Reading Mastery, Phonics for Reading, and REWARDS. In the early grades, Connect Math is used for math interventions; however, at the upper grades, the math interventions are not as structured and are often teacher generated. Some of the early grades writing interventions focus on handwriting, while the interventions offered in the upper grades are more focused on grammar and style. Behavior intervention programs were not specified. In some cases due to time constraints, someone other than the classroom teacher provides the interventions. For example, the school could not find a teacher with time to teach math intervention groups in grades 1 and 2. A part-time teacher was hired and trained to implement Connect Math with these students. Highly supervised instructional aides provide some interventions.

Tier III Interventions. Tier III interventions also happen in the general education classroom and typically last between 30 and 45 minutes. These interventions are often individualized and provided by the classroom teacher. The school also uses extended day programs, such as after-school tutoring, to offer Tier III interventions.

Students in Tier III are assigned a "case manager" (a member of the RTI leadership team) to assist the general education teacher in implementing interventions and collecting data.

Fidelity. The literacy coach observes core curriculum implementation in the classrooms and conducts component meetings every other week to discuss fidelity in reading with teachers. Additionally, Success for All officials conduct fidelity checks regularly.

The leadership team addresses writing and behavior implementation during in service trainings and staff meetings. Since teachers are piloting a number of different programs in these areas, training has been provided on the programs, and the principal observes classes.

For math, the principal conducts random observations and leads discussions at staff meetings. The principal would like to formalize the fidelity checks in math.

Special Education Eligibility. School A uses RTI to determine eligibility in grades K – 5. To determine eligibility, they look at intervention data, family profile, and the student's cumulative file. In addition, the school psychologist may request additional testing.

Challenges

In the beginning, teachers complained that the time it would take for them to provide interventions and administer all the assessments would detract from their ability to teach the core curriculum. Many teachers were also a little reluctant to take on the responsibility of teaching struggling students. The RTI leadership team asked teachers for "a leap of faith" on the part of teachers. They pointed out that the current model was not meeting the needs of all students, and that teachers may address this problem by implementing interventions and frequent progress monitoring. Teacher buy-in has increased as teachers see the progress that their students have made.

Teachers did not like attending monthly meetings in addition to their grade level weekly meetings. The RTI leadership team has tried to make the monthly meetings as

efficient as possible and encouraged the grade level team meetings to include data analysis in other to streamline the monthly meeting.

Strengths

At School A, the staff looks at the whole student in terms of academic and behavior performance as well as attendance record. Families are involved early on in the process. The interventions are targeted and provide students with the instruction that they need. Reading problems could be the big thing, but they also look at everything else they know. The special education department works closely with the classroom teachers in designing appropriate interventions.

Summary Table

RTI Model	Tier I	Tier II	Tier III	Screening/ Progress Monitoring	Notes
Reading, Math, Behavior, Writing, and Attendance; grades K-5	Success For All (reading); McGraw-Hill (math)	Typically provided by the classroom teacher, daily for at least 20 minutes in small groups	Typically provided by the classroom teacher, daily for at least 30 minutes on an individualized basis. Extended day programs and Title I services may provide Tier III interventions	Students are screened every 8 weeks; students in Tiers II and III are progress monitored weekly; DIBELS for reading, teacher developed measures for math; state-generated prompts for writing; various measures for behavior	Variety of subjects; clear exit criteria; lots of district support

Appendix E.

Data Collection Protocol

Appendix E. Data Collection Protocol

For each site, the following steps much be undertaken:

Phone Interview:

- Consent form(s) are collected from each participant on the phone interview
- Researcher conducts initial phone interview using RTI Exemplary Practices Phone Survey Protocol RVSD
- Second researcher takes notes during phone call
- Researcher assigns the site an identification number to be used throughout the data collection process

Site Selection Report:

- Researcher writes Site Selection Report using second researcher's and her own notes
- All identifying information is removed from the Site Selection Report

Site Selection Process:

- Site Selection Report sent COI-SPED team
- Site Selection Report sent to panel of experts
- Selected site contacted by researcher to confirm participation

Site Visit:

- Selected site visit arranged (one school day – principal/RTI leadership team interview, focus group of teachers, and observations of tiered instruction) by site
- Researcher arranges travel and accommodations for each site
- Researcher conducts principal/RTI leadership team interview(s)
- Researcher conducts focus group with teachers
- Researcher observes tiered instruction
- Researcher collects artifacts from each site

Final Site Report:

- Researcher uses notes and artifacts to compile Site Report
- Researcher arranges artifacts into a binder
- Researcher sends Site Report to primary contact for feedback and/or revision
- Researcher incorporates participant feedback and/or revisions into Final Report

Appendix F.

Site Visit Protocol

Appendix F. Site Visit Protocol

The purpose for RTI Exemplary Practices Site Visits is three-fold:

1. To confirm the information provided to use in the screening interviews by the participating schools and/or districts regarding their RTI implementation
2. To collect additional documentation, such as fidelity checklists, RTI-related Professional Development materials, decision-making rules, etc.
3. To establish a professional relationship with the participating schools and/or districts

Katie Tackett will conduct the one-day site visits in April or May 2007. The decision to limit the site visits in terms of duration and number of COI-SPED staff was made to ensure that participation in this project would minimally impact the time and schedules of the schools and/or districts. The site visits will consist of three main activities: observations of Tiers I-III, a focus group of teachers, and an interview with the RTI leadership team.

Observations of Tiers I – III (30 minutes each)

- Modified ICE form
    - Group Size
    - Instructor
    - Location
    - Time

Teacher Focus Group (60 minutes)

- General Education Teachers
- Special Education Teachers
- Intervention Teachers

*Interview** (60 minutes)

- Principal
- School Psychologist
- Other members of the school's RTI leadership team

*Some of the questions included in the interview were asked in the screening interview. In these cases, the school and/or district's answers will be used to help gather more information about these particular topics. Additional questions may be asked during interviews to clarify the answers received during the screening interview.

COI-SPED RTI Exemplary Practices Project

Tiered Instruction Coding Form

(Adapted from the ICE-R Coding Form)

Classroom Information

School: _____

Teacher Name: _____

Observer: _____

Subject: _____

Grade: _____

Number of students: _____

Date: _____

Length of observation: _____

Length of class period: _____

I.C.E. -R
Coding Form

Dimension A: Instructional grouping
Dimension B: Materials used
Dimension C: Content category
Dimension D: Instructor

Time	Brief summary of activity	Dimension			
		A	B	C	D

Interview

(60 minutes)

Principal, School Psychologist, Other Members of RTI Leadership Team

1. Why did you decide to implement an RTI framework? *
    a. Would you characterize RTI as a school improvement initiative or as a means for identifying LD or both?

2. Tell me about the steps involved in "rolling out" RTI at your school.
    a. What professional development did you offer and to whom?
    b. Did you start in one grade?
    c. What pieces, if any, did you have in place before "adopting" RTI (e.g., progress monitoring already going on when RTI was adopted etc.)?
    d. Were you able to "tweak" existing components to RTI-ize them? Please explain.
    e. Did you implement an entire model in a single year?
    f. What would you consider the most important "lesson learned" thus far regarding implementing RTI?
    g. Are you checking on "fidelity" of implementation? If so, describe your protocols for doing so; what is "fidelity;" what data are collected; by whom; how often; etc.?

3. What are your top two goals for your school related to RTI?

a. What progress have you made towards reaching these goals? How do you know? Is this an expected or adequate amount of progress?
b. What do you your data tell you about your progress?
c. What parts of your school's implementation of RTI need to change in order to reach your goals?
d. What plans do you have for making these changes?
e. What have been the successes? To what do you attribute your successes?
f. Have your "goals" changed as a result of your experiences thus far?

4. Many schools have identified teacher buy-in and scheduling as the largest challenges they have faced in implementing RTI.
    a. Were these challenges for you?
    b. If so, how did you address these challenges?
    c. If not, why do you think that these weren't barriers on your campus?
    d. What recommendations would you have for other schools facing similar challenges?
    e. What might you have done differently to avoid the challenge altogether?

5. Have you faced any additional challenges in implementing RTI? * How have you addressed these challenges? What recommendations would you have for other schools facing similar challenges? What might you have done differently to avoid the challenge altogether?

6. Tell me about the instruction that occurs in your special education classrooms. Has this instruction changed since you began implementing RTI? If so, how has this instruction changed?

7. What are your next steps in terms of RTI implementation? How do you plan to fine-tune your school's RTI implementation?

*Some of the questions included in the interview were asked in the screening interview. In these cases, the school and/or district's answers will be used to help gather more information about these particular topics. Additional questions may be asked during interviews to clarify the answers received during the screening interview.

Focus Group

(60 minutes)

General Education Teachers, Special Education Teachers, Intervention Teachers

1. What does the term "Response to Intervention" mean to you?

2. Why did your school decide to implement RTI?

3. What do you see as your role in your school's RTI model?

4. If your role has changed, please describe the change. What do you think about these changes?

5. Whenever you implement new initiatives like RTI, there are things that work well and things that can be challenging. What has been working well for you in terms of RTI implementation? What have been the biggest challenges in implementing RTI at your school?

6. Tell me how you use student assessment data.

7. Tell me about the professional development you have received related to RTI, including formal and informal support.

8. What PD do you wish you had received (or hope that will receive but haven't yet)?

9. What are the strengths of your school's RTI implementation?

10. If done well, do you see RTI as a positive for your school?

Appendix G.

Example of Site Visit Report

Appendix G. Example of Site Visit Report

School A is an elementary (K-5) school in the West.

Demographic Information for 2006-2007

Student population (size) at site	608
Percent of students on free/reduced lunch	56%
Percent of students who are ELL	38%
Percent of students served in Special Education	10%
Percent of students identified as having a Specific Learning Disability	3.8%
Per pupil funding	$8 100
What percentage of your students (per grade) is proficient on your screening measure? Note: School thinks that 3rd grade scores are so high as they are the first grade to go through targeted interventions since K.	K – 88% 1 – 71% 2 – 66% 3 – 91% 4 – 81% 5 – 85%
Is this a Reading First School?	N
Is this a Title I school?	Y

Background

Prior to implementing RTI, School A had used the Emotional/Behavioral Instructional Support (EBIS) model for 7 years to support students having behavior difficulties. The administration wanted a similar data-driven system to support students struggling academically. RTI fit well into their existing EBIS framework, and the administration felt that RTI encouraged all teachers to take responsibility for all students' progress. They began implementing RTI by making their EBIS model more systematic and formal approximately 5 years ago. Additionally, School A believe that parents support the

use of RTI because the number of due process requests related to LD identification has dropped dramatically, and because parents report that they feel involved throughout the entire process and appreciate the use of clear data.

RTI Model

School A has integrated RTI in reading, writing and mathematics into their existing EBIS (behavioral) framework. They use a 3 Tier model for reading, writing, mathematics, behavior and attendance.

Core Curriculum. All students receive Tier I instruction in the general education classroom**.** Success for All is the core curriculum in reading. The district is about to begin the curriculum adoption process for a new reading/language arts curriculum. The principal believes that SFA will not be re-adopted. Students are grouped homogenously for reading and math instruction with groups changing every 6-8 weeks. McGraw Hill is the core curriculum for math at all grade levels. In addition, some classes are piloting the SFA writing curriculum in Tier I.

The observed instruction in the core reading programs was extremely strong at all levels. Teachers used a variety of grouping strategies to differentiate their instruction. They did not rely heavily on their teacher's manuals. Pacing was strong and little instructional time was lost during transitions.

All literacy instruction occurs in English; however, in some classrooms, literacy may be the only instruction offered in English.

Professional Development. Campus leaders (including the principal, literacy specialist, special education teacher, and one teacher from each grade level) were trained by the district on RTI and are responsible for bringing the information back to campus. Formal

professional development is offered through inservice days three times a year. Topics include progress monitoring, data analysis, and refreshers on the overall RTI model.

All teachers were trained by product consultants on implementing the core curriculum in all subject areas. In addition, teachers are trained on various packaged intervention programs. The school hired a specialist this year to help teachers develop and implement writing interventions and to train all the teachers on the 4-Square method. The teachers reported that they would like more opportunities to observe other teachers.

The literacy coach trains all of the Educational Assistants (EAs) to deliver the interventions. She also offers informal support to the EAs when needed. However, the RTI model implemented at School A was not fully explained to the EAs, and they had many questions about their role in the implementation and how they contribute to the overall success of RTI at School 0006. In addition, the EAs that work for less than 4 hours a day did not any receive district training (beyond the training offered by the coach on intervention programs).

Because the district is seen as a leader in terms of RTI implementation in the country, the leadership team at School A has presented at conferences and consulted with other schools interested in implementing RTI.

Screening. Screening assessments are administered every eight weeks as prescribed by the core curriculum. DIBELS is used for screening in reading; the literacy specialist, Title I teacher, and EAs administering the measures. Assessments embedded in the core math curriculum (such as the chapter tests) are used as screening measures in math. State-developed writing prompts are administered to screen in writing; the students' products are

scored using the state rubric. The classroom teachers collect writing and mathematics data. Universal screening also occurs for behavior using various grade-appropriate measures.

Progress Monitoring. DIBELS is used as a weekly progress monitoring measure for students receiving reading interventions. Teacher-developed tests are administered weekly in the math intervention groups. The intervention teacher administers all progress monitoring measures. All measures are kept in individual students' folders and seem to be administered on different schedules according to the particular intervention teacher (e.g., some progress monitor all students on a given day, others progress monitor one particular student each day). Student papers are collected and scored on a monthly basis by the intervention teacher using the state rubric. While the infrequency of the scoring of the writing progress monitoring is not ideal, due to staff constraints, School A finds this system both feasible and efficient. Students receiving behavior interventions are progress monitored using the First Step assessment. The principal monitors attendance data.

Data Use and Management. Teachers meet weekly by grade level to plan instruction, analyze the data, and to prepare for the monthly EBIS/RTI team meetings. The grade level teachers facilitate this meeting; no member of the RTI leadership team is present. The RTI team (the principal, school counselor, literacy specialist, special education representative, ELL representative, and teachers) meets monthly by grade level to discuss students. The RTI team uses a form that lists students who are performing in the bottom 20% of all students in the areas of mathematics, writing, reading, behavior, and/or attendance in a particular grade. The form lists areas in which students are struggling and the interventions they are being provided. Students who are not making progress in either the core curriculum or the interventions are discussed at the monthly meeting; approximately 12 students per

grade are discussed each month. The principal has established a formal rule that teachers cannot present a student's data to the team unless they are willing to plan an intervention; "you can't talk about a kid without [being willing to] do something."

The team examines the progress monitoring data, and if a student fails to show growth after receiving an intervention for a month, the intervention is changed. Typically, students receive two Tier II interventions before being referred to Tier III. If students continue to fail to make progress in two Tier III interventions, the student are referred to special education. In addition, students are exited from a Tier if they have demonstrated growth along a predetermined aim line for at least one month.

Currently, School A uses an electronic management system provided by the state university. In addition, the literacy specialist keeps track of all of the literacy data using Excel. All School A staff members have access to the data. Classroom and individual student reports are created, disseminated to the RTI team and classroom teachers, and discussed at the monthly team meetings.

Tier II Interventions. The EBIS/RTI team selects the appropriate intervention for students using the data presented in the monthly meetings. Tier II interventions are offered daily and last between 20 and 45 minutes. All interventions are offered in the afternoon. Educational Assistants (EAs) administer all of the interventions. The interventions happen outside of the general education classroom. Group size varies from 4 to 6. Observed instruction was strong. EAs were obviously familiar with the programs they implemented, as the pacing was appropriate and effective, and they did not overly rely on the teachers' manuals.

The schedules for EAs change every 8 weeks as intervention groups are adjusted according to screening data. Most of the EAs rotate the intervention they deliver as well as where they deliver it according to student needs and space availability (e.g., one EA may deliver Reading Mastery outside of the third grade rooms and then switch to Reading Mastery for first graders in the Title I room). The principal remarked that while the school building is fairly new (3 years old), School A has quickly outgrown it due to the large number of interventions being offered; indeed, almost every open space in the school is used in the afternoons for interventions. In the Title I classroom, 2 Tier II interventions and 5 Tier III interventions occurred simultaneously.

Programs used for reading interventions include Read Naturally, Reading Mastery, Phonics for Reading, and REWARDS. In the early grades, Connect Math is used for math interventions; however, at the upper grades, the math interventions are not as structured and are often teacher generated. Some of the early grades' writing interventions focus on handwriting, while the interventions offered in the upper grades are more focused on grammar and style. Tier II interventions are also offered in attendance and behavior. For students who have missed more than 5 days within a 30 day period, they are required to go to a "club" each morning to check in, receive breakfast, and positive reinforcement from school staff. If attendance problems persist, the school offers a type of RTI for parents with increasingly intensive interventions (phone calls home, home visits, truant officers, etc.) Social Skills or First Steps are used for some of the Tier II behavior interventions. Other Tier II behavior interventions occur within the class as teachers have the option of implementing a Behavior Improvement Plan in the general education classroom.

Tier III Interventions. Tier III interventions also occur outside of the general education classroom and typically last between 30 and 45 minutes. These interventions are often individualized and provided by an EA. The school also uses extended day programs, such as after-school tutoring, to offer Tier III interventions. The same programs are used in Tier III as in Tier II; the group size and duration are changed to intensify the instruction.

Students in Tier III are assigned a "case manager" (a member of the RTI leadership team) to assist the general education teacher in collecting data and the EA in implementing the interventions.

Fidelity. The literacy coach observes core curriculum implementation in the classrooms and conducts component meetings (focusing on one core component of reading, such as vocabulary or fluency) every other week to discuss fidelity in reading with teachers. Additionally, Success for All officials conduct fidelity checks regularly. The literacy coach has also conducted formal fidelity checks by observing each EA at least once a school year. She gives program-specific refreshers to EAs who are not implementing the programs effectively and conducts as many informal observations as necessary for those EAs.

The leadership team addresses writing and behavior implementation during in-service trainings and staff meetings. Since teachers are piloting a number of different programs in these areas, they have been trained on the programs. The principal conducts observations in order to assess how the programs are being implemented.

For math, the principal conducts random observations and leads discussions around a variety of topics at staff meetings. The principal would like to formalize the fidelity checks in math.

Special Education Eligibility. School A uses RTI to determine eligibility in grades K – 5. Students begin the intervention process after participating in 2 Tier II and 2 Tier III interventions without making significant progress. To determine eligibility, the school considers intervention data, developmental history, and information in the student's cumulative file. In addition, the school psychologist may request additional testing (e.g., measures of behavior/attention). The special education director feels that the process has been streamlined and made more transparent since the implementation of RTI.

The district no longer utilizes IQ testing in any LD eligibility decisions. The percentage of students served in special education (10%) and identified with LD (3.8%) have stayed steady since implementing RTI district-wide. The district feels that this supports their position that RTI does not eliminate the construct of LD but rather helps a school correctly identify those students who have LD.

Special Education Instruction. Special education instruction has not changed much at School A since the implementation of RTI, except that some of the students receiving services in the resource room are not in special education. For instance, the resource teacher teaches a 90-minute block of Reading Mastery to students in the afternoons. Most, but not all, of the students enrolled in this block are in special education.

Instructional decisions in special education are made by considering a student's present level of performance and identifying gaps in his or her knowledge base. The instruction is direct and explicit; students are grouped by ability. The instruction is connected to the core curriculum in order to ensure the transfer of skills from the special education classroom to a general education setting.

Challenges

In the beginning, there was resistance on the teachers' part, as they believed that the time it would take for them to provide interventions and administer the assessments would diminish their effectiveness in teaching the core curriculum. Many teachers were also a little reluctant to take on the responsibility of teaching struggling students and believed that RTI would delay services to these students. The RTI leadership team asked teachers to take "a leap of faith," pointing out that the current model was not meeting the needs of all students. Teacher buy-in has increased as teachers see the progress that their students have made. Teachers also reported that they recognize the importance of small group instruction for the diverse population at School A.

Attending monthly meetings in addition to grade level weekly meetings can be time consuming, according to teachers. The RTI leadership team has tried to make the monthly meetings as efficient as possible and encouraged the grade level team meetings to include data analysis in order to streamline the monthly meeting, which has also benefited the RTI team as they meet 6 times per month (1 meeting with each grade level K – 5).

In addition, scheduling has been difficult as there is "never a good time to pull students out" of the general education classroom. The RTI team reports that they are trying to be creative about when to pull students out; most of the pull-outs occur during science and social studies with some occurring during recess and specials. School A has tried to minimize the scheduling difficulties by aligning (to the degree possible) the general and special education schedules, as well as coordinating when ELL services are offered.

The teachers acknowledge that the data is helpful, but they sometimes feel overwhelmed by the sheer amount of data and the time required to collect, organize, and

manage it (e.g., DIBELS, behavior plans, writing samples, etc.). In fact, some teachers equated the term RTI with "data."

The EAs reported that they would like a larger role in the RTI model. Indeed, the EAs did not have a clear picture of the RTI model at School A. They felt that they merely implemented the intervention and served as "data collectors." The EAs reported that there was little 2-way communication between themselves and teachers. They would appreciate feedback from classroom teachers as a way to improve their instruction, as well as to help understand the "whys" behind decisions.

Strengths

At School A, the staff considers the whole student in terms of academic and behavior performance as well as attendance record. The interventions are targeted and provide students with the instruction that they need; the fact that so many interventions are offered allows the school to place the student in an appropriate intervention quickly. In addition, the large scope of the RTI model at School A (academic and behavioral domains) allows the school to pinpoint what support a student needs. For instance, reading could be "the big thing" that a student is struggling with, but the team also considers his current status and recent progress in other areas, math, writing, behavior, or attendance.

The staff seemed very cohesive and focused on similar goals. Communication centered on the students, and the staff shared a common language. The school culture was extremely positive as teachers took responsibility for all students; the teachers reported that the positive school culture remained constant despite some staff turnover. The principal is a very strong leader; she spoke knowledgably about all aspects of the RTI model and the

instruction offered within each tier. The rooms were warm and inviting; student work was prominently displayed throughout the school.

School A's model and processes are clearly outlined. A first year teacher commented that the process was very easy to learn. In addition, there is close communication between the ELL and SPED departments. Several members of the RTI team and the teachers commented that they "love" this process and felt that students' needs are being met much more effectively and proactively since School A began implementing RTI.

Next Steps

School A would like to continue improving the math and writing interventions, formalize fidelity checks in this area, and strengthen the assessment piece. The district is beginning to implement CBMs in math at all district elementary schools. School A believes that these measures will improve their ability to target students' needs and address particular skills more effectively and efficiently.

The principal stated that scheduling is "always a work in progress." She is continually looking for ways to minimize pull-outs. In addition, she would like for teachers to become more adept at analyzing data. While DIBELS has been used in School A for many years, teachers have become more skilled in analyzing and interpreting the data since the implementation of RTI. The principal would like their development to continue.

The principal would also like to shore up the behavior component of School A's RTI model. Teachers currently have the option of implementing their own Behavior Implementation Plan (BIP) for students struggling with behavior. She would like this process to become more formal and to see more teachers feel comfortable at writing and implementing BIPs on their own.

Summary Table

RTI Model	**Tier I**	**Tier II**	**Tier III**	**Screening/ Progress Monitoring**
Reading, Math, Behavior, Writing, and Attendance; grades K-5	Success For All (reading); McGraw-Hill (math)	Typically provided an EA, daily for at least 20 minutes in small groups	Typically provided by as EA, daily for at least 30 minutes on an individualized basis. Extended day programs and Title I services may provide Tier III interventions	Students are screened every 8 weeks; students in Tiers II and III are progress monitored weekly; DIBELS for reading, teacher developed measures for math; state-generated prompts for writing; various measures for behavior

Appendix H.

Example of Site Visit Report with Participant Feedback

Appendix H. Example of Site Visit Report with Participant Feedback

School A is an elementary (K-5) school in the West.

Demographic Information for 2006-2007

Student population (size) at site	608
Percent of students on free/reduced lunch	56%
Percent of students who are ELL	38%
Percent of students served in Special Education	10%
Percent of students identified as having a Specific Learning Disability	3.8%
Per pupil funding	$8 100
What percentage of your students (per grade) is proficient on your screening measure? Note: School thinks that 3rd grade scores are so high as they are the first grade to go through targeted interventions since K.	K – 88% 1 – 71% 2 – 66% 3 – 91% 4 – 81% 5 – 85%
Is this a Reading First School?	N
Is this a Title I school?	Y

Background

Prior to implementing RTI, School A had used the Emotional/Behavioral Instructional Support (EBIS) model for 7 years to support students having behavior difficulties. The administration wanted a similar data-driven system to support students struggling academically. RTI fit well into their existing EBIS framework, and the administration felt that RTI encouraged all teachers to take responsibility for all students' progress. They began implementing RTI by making their EBIS model more systematic and

formal approximately 5 years ago. Additionally, School A believe that parents support the use of RTI because the number of due process requests related to LD identification has dropped dramatically, and because parents report that they feel involved throughout the entire process and appreciate the use of clear data.

RTI Model

School A has integrated RTI in reading, writing and mathematics into their existing EBIS (behavioral) framework. They use a 3 Tier model for reading, writing, mathematics, behavior and attendance.

Core Curriculum. All students receive Tier I instruction in the general education classroom**.** Success for All is the core curriculum in reading. The district is about to begin the curriculum adoption process for a new reading/language arts curriculum. The principal believes that SFA will not be re-adopted. Students are grouped homogenously for reading and math instruction with groups changing every 6-8 weeks. McGraw Hill is the core curriculum for math at all grade levels. In addition, some classes are piloting the SFA writing curriculum in Tier I.

The observed instruction in the core reading programs was extremely strong at all levels. Teachers used a variety of grouping strategies to differentiate their instruction. They did not rely heavily on their teacher's manuals. Pacing was strong and little instructional time was lost during transitions.

There is native language literacy for Spanish speaking students in grades K-3 with transition classes to English following in fourth and fifth grades. All literacy instruction occurs in English; however, in some classrooms, literacy may be the only instruction offered in English.

Professional Development. Campus leaders (including the principal, literacy specialist, special education teacher, *ELL teacher,* and one teacher from each grade level) were trained by the district on RTI and are responsible for bringing the information back to campus. Formal professional development is offered through inservice days three times a year. Topics include progress monitoring, data analysis, and refreshers on the overall RTI model.

All teachers were trained by product consultants on implementing the core curriculum in all subject areas. In addition, teachers are trained on various packaged intervention programs. The school hired a specialist this year to help teachers develop and implement writing interventions and to train all the teachers on the 4-Square method. The teachers reported that they would like more opportunities to observe other teachers.

The literacy coach trains all of the Educational Assistants (EAs) to deliver the interventions. She also offers informal support to the EAs when needed. However, the RTI model implemented at School A was not fully explained to the EAs (*just wondered if one EA spoke about this or more than one?),* and they had many questions about their role in the implementation and how they contribute to the overall success of RTI at School 0006 *(A?).* In addition, the EAs that work for less than 4 hours a day did not receive district training (beyond the training offered by the coach on intervention programs).

Because the district is seen as a leader in terms of RTI implementation in the country, the leadership team at School A has presented at conferences and consulted with other schools interested in implementing RTI.

Screening. Screening assessments are administered every eight weeks as prescribed by the core curriculum. DIBELS is used for screening in reading; the literacy specialist, Title

I teacher, and EAs administering the measures. Assessments embedded in the core math curriculum (such as the chapter tests) are used as screening measures in math. State-developed writing prompts are administered to screen in writing; the students' products are scored using the state rubric. The classroom teachers collect writing and mathematics data. Universal screening also occurs for behavior using various grade-appropriate measures.

Progress Monitoring. DIBELS is used as a weekly progress monitoring measure for students receiving reading interventions. Teacher-developed tests are administered weekly in the math intervention groups. The intervention teacher administers all progress monitoring measures. All measures are kept in individual students' folders and seem to be administered on different schedules according to the particular intervention teacher (e.g., some progress monitor all students on a given day, others progress monitor one particular student each day). Student papers are collected and scored on a monthly basis by the intervention teacher using the state rubric. While the infrequency of the scoring of the writing progress monitoring is not ideal, due to staff constraints, School A finds this system both feasible and efficient. Students receiving behavior interventions are progress monitored using the First Step assessment. The principal monitors attendance data.

Data Use and Management. Teachers meet weekly by grade level to plan instruction, analyze the data, and to prepare for the monthly EBIS/RTI team meetings. The grade level teachers facilitate this meeting; no member of the RTI leadership team is present. The RTI team (the principal, school counselor, literacy specialist, special education representative, ELL representative, and teachers) meets monthly by grade level to discuss students. The RTI team uses a form that lists students who are performing in the bottom 20% of all students in the areas of mathematics, writing, reading, behavior, and/or attendance in a

particular grade. The form lists areas in which students are struggling and the interventions they are being provided. Students who are not making progress in either the core curriculum or the interventions are discussed at the monthly meeting; approximately 12 students per grade are discussed each month. The principal has established a formal rule that teachers cannot present a student's data to the team unless they are willing to plan an intervention; "you can't talk about a kid without [being willing to] do something."

The team examines the progress monitoring data, and if a student fails to show growth after receiving an intervention for a month, the intervention is changed. Typically, students receive two Tier II interventions before being referred to Tier III. If students continue to fail to make progress in two Tier III interventions, the student are referred to special education. In addition, students are exited from a Tier if they have demonstrated growth along a predetermined aim line for at least one month.

Currently, School A uses an electronic management system provided by the state university. In addition, the literacy specialist keeps track of all of the literacy data using Excel. All School A staff members have access to the data. Classroom and individual student reports are created, disseminated to the RTI team and classroom teachers, and discussed at the monthly team meetings.

Tier II Interventions. The EBIS/RTI team selects the appropriate intervention for students using the data presented in the monthly meetings. Tier II interventions are offered daily and last between 20 and 45 minutes. All interventions are offered in the afternoon. Educational Assistants (EAs) administer all of the interventions. The interventions happen outside of the general education classroom. Group size varies from 4 to 6. Observed instruction was strong. EAs were obviously familiar with the programs they implemented, as

the pacing was appropriate and effective, and they did not overly rely on the teachers' manuals.

The schedules for EAs change every 8 weeks as intervention groups are adjusted according to screening data. Most of the EAs rotate the intervention they deliver as well as where they deliver it according to student needs and space availability (e.g., one EA may deliver Reading Mastery outside of the third grade rooms and then switch to Reading Mastery for first graders in the Title I room). The principal remarked that while the school building is fairly new (3 years old), School A has quickly outgrown it due to the large number of interventions being offered; indeed, almost every open space in the school is used in the afternoons for interventions. In the Title I classroom, 2 Tier II interventions and 5 Tier III interventions occurred simultaneously.

Programs used for reading interventions include Read Naturally, Reading Mastery, Phonics for Reading, and REWARDS. In the early grades, Connect Math is used for math interventions; however, at the upper grades, the math interventions are not as structured and are often teacher generated. Some of the early grades' writing interventions focus on handwriting, *(to my knowledge, most of the interventions throughout the 1-5 grades have been centered on conventions and style with a few kids in kinder focusing on handwriting)* while the interventions offered in the upper grades are more focused on grammar and style.

Tier II interventions are also offered in attendance and behavior. For students who have missed more than 5 days within a 30 day period, they are required to go to a "club" each morning to check in, receive breakfast, and positive reinforcement from school staff. If attendance problems persist, the school offers a type of RTI for parents with increasingly intensive interventions (phone calls home, home visits, truant officers, etc.) Social Skills or

First Steps are used for some of the Tier II behavior interventions. Other Tier II behavior interventions occur within the class as teachers have the option of implementing a Behavior Improvement Plan in the general education classroom.

Tier III Interventions. Tier III interventions also occur outside of the general education classroom and typically last between 30 and 45 minutes. These interventions are often individualized and provided by an EA. The school also uses extended day programs, such as after-school tutoring, to offer Tier III interventions. The same programs are used in Tier III as in Tier II; the group size and duration are changed to intensify the instruction.

Students in Tier III are assigned a "case manager" (a member of the RTI leadership team) to assist the general education teacher in collecting data and the EA in implementing the interventions.

Fidelity. The literacy coach observes core curriculum implementation in the classrooms and conducts component meetings (focusing on one core component of reading, such as vocabulary or fluency) every other week to discuss fidelity in reading with teachers. Additionally, Success for All officials conduct fidelity checks regularly. The literacy coach has also conducted formal fidelity checks by observing each EA at least once a school year. She gives program-specific refreshers to EAs who are not implementing the programs effectively and conducts as many informal observations as necessary for those EAs.

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The district no longer utilizes IQ testing in any LD eligibility decisions. The percentage of students served in special education (10%) and identified with LD (3.8%) have stayed steady since implementing RTI district-wide. The district feels that this supports their position that RTI does not eliminate the construct of LD but rather helps a school correctly identify those students who have LD. *(Essentially, we have had fewer referrals but they have been on target for identifying a true learning problem.)*

Special Education Instruction. Special education instruction has not changed much at School A since the implementation of RTI, except that some of the students receiving services in the resource room are not in special education. For instance, the resource teacher teaches a 90-minute block of Reading Mastery to students in the afternoons. Most, but not all, of the students enrolled in this block are in special education.

Instructional decisions in special education are made by considering a student's present level of performance and identifying gaps in his or her knowledge base. The

instruction is direct and explicit; students are grouped by ability. The instruction is connected to the core curriculum in order to ensure the transfer of skills from the special education classroom to a general education setting.

Challenges

In the beginning, there was resistance on the teachers' part, as they believed that the time it would take for them to provide interventions and administer the assessments would diminish their effectiveness in teaching the core curriculum. Many teachers were also a little reluctant to take on the responsibility of teaching struggling students and believed that RTI would delay services to these students. The RTI leadership team asked teachers to take "a leap of faith," pointing out that the current model was not meeting the needs of all students. Teacher buy-in has increased as teachers see the progress that their students have made. Teachers also reported that they recognize the importance of small group instruction for the diverse population at School A.

Attending monthly meetings in addition to grade level weekly meetings can be time consuming, according to teachers. The RTI leadership team has tried to make the monthly meetings as efficient as possible and encouraged the grade level team meetings to include data analysis in order to streamline the monthly meeting, which has also benefited the RTI team as they meet 6 times per month (1 meeting with each grade level K – 5).

In addition, scheduling has been difficult as there is "never a good time to pull students out" of the general education classroom. The RTI team reports that they are trying to be creative about when to pull students out; most of the pull-outs occur during science and social studies with some occurring during recess and specials. School A has tried to

minimize the scheduling difficulties by aligning (to the degree possible) the general and special education schedules, as well as coordinating when ELL services are offered.

The teachers acknowledge that the data is helpful, but they sometimes feel overwhelmed by the sheer amount of data and the time required to collect, organize, and manage it (e.g., DIBELS, behavior plans, writing samples, etc.). In fact, some teachers equated the term RTI with "data."

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Strengths

At School A, the staff considers the whole student in terms of academic and behavior performance as well as attendance record. The interventions are targeted and provide students with the instruction that they need; the fact that so many interventions are offered allows the school to place the student in an appropriate intervention quickly. In addition, the large scope of the RTI model at School A (academic and behavioral domains) allows the school to pinpoint what support a student needs. For instance, reading could be "the big thing" that a student is struggling with, but the team also considers his current status and recent progress in other areas, math, writing, behavior, or attendance.

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School A's model and processes are clearly outlined. A first year teacher commented that the process was very easy to learn. In addition, there is close communication between the ELL and SPED departments. Several members of the RTI team and the teachers commented that they "love" this process and felt that students' needs are being met much more effectively and proactively since School A began implementing RTI.

Next Steps

School A would like to continue improving the math and writing interventions, formalize fidelity checks in this area, and strengthen the assessment piece. The district is beginning to implement CBMs in math at all district elementary schools. School A believes that these measures will improve their ability to target students' needs and address particular skills more effectively and efficiently.

The principal stated that scheduling is "always a work in progress." She is continually looking for ways to minimize pull-outs. In addition, she would like for teachers to become more adept at analyzing data. While DIBELS has been used in School A for many years,

teachers have become more skilled in analyzing and interpreting the data since the implementation of RTI. The principal would like their development to continue.

The principal would also like to shore up the behavior component of School A's RTI model. Teachers currently have the option of implementing their own Behavior Implementation Plan (BIP) for students struggling with behavior. She would like this process to become more formal and to see more teachers feel comfortable at writing and implementing BIPs on their own.

Summary Table

RTI Model	**Tier I**	**Tier II**	**Tier III**	**Screening/ Progress Monitoring**
Reading, Math, Behavior, Writing, and Attendance; grades K-5	Success For All (reading); McGraw-Hill (math)	Typically provided an EA, daily for at least 20 minutes in small groups	Typically provided by as EA, daily for at least 30 minutes on an individualized basis. Extended day programs and Title I services may provide Tier III interventions	Students are screened every 8 weeks; students in Tiers II and III are progress monitored weekly; DIBELS for reading, teacher developed measures for math; state-generated prompts for writing; various measures for behavior

Appendix I.

Example of Final Report.

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School A is an elementary (K-5) school in the West.

Demographic Information for 2006-2007

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Percent of students on free/reduced lunch	56%
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Per pupil funding	$8 100
What percentage of your students (per grade) is proficient on your screening measure? Note: School thinks that 3rd grade scores are so high as they are the first grade to go through targeted interventions since K.	K – 88% 1 – 71% 2 – 66% 3 – 91% 4 – 81% 5 – 85%
Is this a Reading First School?	N
Is this a Title I school?	Y

Background

Prior to implementing RTI, School A had used the Effective Behavioral Instructional Support (EBIS) model for 3 years to support students having behavior difficulties. The administration wanted a similar data-driven system to support students struggling academically; they added instruction to the model and renamed the system EBIS. RTI fit well into their existing EBIS framework, and the administration felt that RTI encouraged all teachers to take responsibility for all students' progress. They began implementing RTI by making their EBIS model more systematic and formal approximately 7 years ago. Additionally, School A believe that

parents support the use of RTI because they have had no due process requests since they began implementing RTI and because parents report that they feel involved throughout the entire process and appreciate the use of clear data.

RTI Model

School A has integrated RTI in reading, writing and mathematics into their existing EBIS (behavioral) framework. They use a 3 Tier model for reading, writing, mathematics, behavior and attendance.

Core Curriculum. All students receive Tier I instruction in the general education classroom**.** Success for All is the core curriculum in reading. The district is about to begin the curriculum adoption process for a new reading/language arts curriculum. The principal believes that SFA will not be re-adopted. Students are grouped homogenously for reading and math instruction with groups changing every 6-8 weeks. McGraw Hill is the core curriculum for math at all grade levels. In addition, some classes are piloting the SFA writing curriculum in Tier I.

The observed instruction in the core reading programs was extremely strong at all levels. Teachers used a variety of grouping strategies to differentiate their instruction. They did not rely heavily on their teacher's manuals. Pacing was strong and little instructional time was lost during transitions.

There is native language literacy for Spanish speaking students in grades K-3 with transition classes to English following in fourth and fifth grades. All literacy instruction occurs in English; however, in some classrooms, literacy may be the only instruction offered in English.

Professional Development. Campus leaders (including the principal, literacy specialist, special education teacher, ELL teacher, and one teacher from each grade level) were trained by the district on RTI and are responsible for bringing the information back to campus. Formal professional development is offered through inservice days three times a year. Topics include progress monitoring, data analysis, and refreshers on the overall RTI model.

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The literacy coach trains all of the Educational Assistants (EAs) to deliver the interventions. She also offers informal support to the EAs when needed. However, the RTI model implemented at School A was not fully explained to the EAs, and they had many questions about their role in the implementation and how they contribute to the overall success of RTI at School A. In addition, the EAs that work for less than 4 hours a day did not any receive district training (beyond the training offered by the coach on intervention programs).

Because the district is seen as a leader in terms of RTI implementation in the country, the leadership team at School A has presented at conferences and consulted with other schools interested in implementing RTI.

Screening. Screening assessments are administered every eight weeks as prescribed by the core curriculum. DIBELS is used for screening in reading; the district DIBELS team,

comprised of retired teachers and EAs administer the measures. Assessments embedded in the core math curriculum (such as the chapter tests) are used as screening measures in math. State-developed writing prompts are administered to screen in writing; the students' products are scored using the state rubric. The classroom teachers collect writing and mathematics data. Universal screening also occurs for behavior using various grade-appropriate measures.

Progress Monitoring. DIBELS is used as a weekly progress monitoring measure for students receiving reading interventions. Teacher-developed tests and CBMs are administered weekly in the math intervention groups. The intervention teacher administers all progress monitoring measures. All measures are kept in individual students' folders and seem to be administered on different schedules according to the particular intervention teacher (e.g., some progress monitor all students on a given day, others progress monitor one particular student each day). Student papers are collected and scored on a monthly basis by the intervention teacher using the state rubric. While the infrequency of the scoring of the writing progress monitoring is not ideal, due to staff constraints, School A finds this system both feasible and efficient. Students receiving behavior interventions are progress monitored using the First Step assessment. The principal monitors attendance data.

Data Use and Management. Teachers meet weekly by grade level to plan instruction, analyze the data, and to prepare for the monthly EBIS/RTI team meetings. The grade level teachers facilitate this meeting; no member of the RTI leadership team is present. The RTI team (the principal, school counselor, literacy specialist, special education representative, ELL representative, and teachers) meets monthly by grade level to discuss students. The RTI team uses a form that lists students who are performing in the bottom 20% of all students in the areas of mathematics, writing, reading, behavior, and/or attendance in a

particular grade. The form lists areas in which students are struggling and the interventions they are being provided. Students who are not making progress in either the core curriculum or the interventions are discussed at the monthly meeting; approximately 12 students per grade are discussed each month. The principal has established a formal rule that teachers cannot present a student's data to the team unless they are willing to plan an intervention; "you can't talk about a kid without [being willing to] do something."

The team examines the progress monitoring data, and if a student fails to show growth after receiving an intervention for a month, the intervention is changed. Typically, students receive two Tier II interventions before being referred to Tier III. If students continue to fail to make progress in two Tier III interventions, the student are referred to special education. In addition, students are exited from a Tier if they have demonstrated growth along a predetermined aim line for at least one month.

Currently, School A uses an electronic management system provided by the state university. In addition, the literacy specialist keeps track of all of the literacy data using Excel. All School A staff members have access to the data. Classroom and individual student reports are created, disseminated to the RTI team and classroom teachers, and discussed at the monthly team meetings.

Tier II Interventions. The EBIS/RTI team selects the appropriate intervention for students using the data presented in the monthly meetings. Tier II interventions are offered daily and last between 20 and 45 minutes. All interventions are offered in the afternoon. Educational Assistants (EAs) administer all of the interventions. The interventions happen outside of the general education classroom. Group size varies from 4 to 6. Observed instruction was strong. EAs were obviously familiar with the programs they implemented, as

the pacing was appropriate and effective, and they did not overly rely on the teachers' manuals.

The schedules for EAs change every 8 weeks as intervention groups are adjusted according to screening data. Most of the EAs rotate the intervention they deliver as well as where they deliver it according to student needs and space availability (e.g., one EA may deliver Read Naturally outside of the third grade rooms and then switch to Reading Mastery for first graders in the Title I room). The principal remarked that while the school building is fairly new (3 years old), School A has quickly outgrown it due to the large number of interventions being offered; indeed, almost every open space in the school is used in the afternoons for interventions. In the Title I classroom, 2 Tier II interventions and 5 Tier III interventions occurred simultaneously.

Programs used for reading interventions include Read Naturally, Reading Mastery, Phonics for Reading, and REWARDS and approximately 20 other programs, K-5. In the early grades, Connect Math is used for math interventions; however, at the upper grades, the math interventions are not as structured and are often teacher generated. The writing interventions in Kindergarten focus on handwriting, while the interventions offered in the grades 1 - 5 are more focused on conventions, grammar, and style. Tier II interventions are also offered in attendance and behavior. For students who have missed more than 5 days within a 30 day period, they are required to go to a "club" each morning to check in, receive breakfast, and positive reinforcement from school staff. If attendance problems persist, the school offers a type of RTI for parents with increasingly intensive interventions (phone calls home, home visits, truant officers, etc.) Social Skills or First Steps are used for some of the Tier II behavior interventions. Other Tier II behavior interventions occur within the class as

teachers have the option of implementing a Behavior Improvement Plan in the general education classroom.

Tier III Interventions. Tier III interventions also occur outside of the general education classroom and typically last between 30 and 45 minutes. These interventions are often individualized and provided by an EA. The school also uses extended day programs, such as after-school tutoring, to offer Tier III interventions. Tier III interventions are often more comprehensive and explicit than Tier II. When appropriate, the same curriculum is used in Tier III. In this case, group size is reduced, or more time is added to the intervention.

Students in Tier III are assigned a "case manager" (a member of the RTI leadership team) to assist the general education teacher in collecting data and the EA in implementing the interventions.

Fidelity. The literacy coach observes core curriculum implementation in the classrooms and conducts component meetings (focusing on one core component of reading, such as vocabulary or fluency) every other week to discuss fidelity in reading with teachers. Additionally, Success for All officials conduct fidelity checks regularly. The literacy coach has also conducted formal fidelity checks by observing each EA at least once a school year. She gives program-specific refreshers to EAs who are not implementing the programs effectively and conducts as many informal observations as necessary for those EAs.

The leadership team addresses writing and behavior implementation during in-service trainings and staff meetings. Since teachers are piloting a number of different programs in these areas, they have been trained on the programs. The principal conducts observations in order to assess how the programs are being implemented.

For math, the principal conducts random observations and leads discussions around a variety of topics at staff meetings. The principal would like to formalize the fidelity checks in math.

Special Education Eligibility. School A uses RTI to determine eligibility in grades K – 5. Students begin the intervention process after participating in three total interventions, typically one Tier II and two Tier III interventions without making significant progress according to district decision rules. To determine eligibility, the school considers intervention data, (WIAT-II subtests, phonics inventory, statewide assessment results, observation data), developmental history, and information in the student's cumulative file. After consent for evaluation, the multidisciplinary team conducts additional testing in any other area of concern. The special education director feels that the process has been streamlined and made more transparent since the implementation of RTI.

The district no longer utilizes IQ testing in any LD eligibility decisions. The percentage of students served in special education (10%) and identified with LD (5%) has stayed steady since implementing RTI district-wide. The district feels that this supports their position that RTI does not eliminate the construct of LD but rather helps a school correctly identify those students who have LD. The principal noted that there have been fewer referrals to special education overall; for the referrals that do occur, she feels that "they have been on target for identifying a true learning problem."

Special Education Instruction. Special education instruction has not changed much at School A since the implementation of RTI, except that some of the students receiving services in the resource room are not in special education. For instance, the resource teacher

teaches a 90-minute block of Reading Mastery to students in the afternoons. Most, but not all, of the students enrolled in this block are in special education.

Instructional decisions in special education are made by considering a student's present level of performance and identifying gaps in his or her knowledge base. The instruction is direct and explicit; students are grouped by current skill level. The instruction is connected to the core curriculum in order to ensure the transfer of skills from the special education classroom to a general education setting.

Challenges

In the beginning, there was resistance on the teachers' part, as they believed that the time it would take for them to provide interventions and administer the assessments would diminish their effectiveness in teaching the core curriculum. Many teachers were also a little reluctant to take on the responsibility of teaching struggling students and believed that RTI would delay services to these students. The RTI leadership team asked teachers to take "a leap of faith," pointing out that the current model was not meeting the needs of all students. Teacher buy-in has increased as teachers see the progress that their students have made. Teachers also reported that they recognize the importance of small group instruction for the diverse population at School A.

Attending monthly meetings in addition to grade level weekly meetings can be time consuming, according to teachers. The RTI leadership team has tried to make the monthly meetings as efficient as possible and encouraged the grade level team meetings to include data analysis in order to streamline the monthly meeting, which has also benefited the RTI team as they meet 6 times per month (1 meeting with each grade level K – 5).

In addition, scheduling has been difficult as there is "never a good time to pull students out" of the general education classroom. The RTI team reports that they are trying to be creative about when to pull students out; most of the pull-outs occur during science and social studies with some occurring during recess and specials. School A has tried to minimize the scheduling difficulties by aligning (to the degree possible) the general and special education schedules, as well as coordinating when ELL services are offered.

The teachers acknowledge that the data is helpful, but they sometimes feel overwhelmed by the sheer amount of data and the time required to collect, organize, and manage it (e.g., DIBELS, behavior plans, writing samples, etc.). In fact, some teachers equated the term RTI with "data."

The EAs reported that they would like a larger role in the RTI model. Indeed, the EAs did not have a clear picture of the RTI model at School A. They felt that they merely implemented the intervention and served as "data collectors." The EAs reported that there was little 2-way communication between themselves and teachers. They would appreciate feedback from classroom teachers as a way to improve their instruction, as well as to help understand the "whys" behind decisions.

Strengths

At School A, the staff considers the whole student in terms of academic and behavior performance as well as attendance record. The interventions are targeted and provide students with the instruction that they need; the fact that so many interventions are offered allows the school to place the student in an appropriate intervention quickly. In addition, the large scope of the RTI model at School A (academic and behavioral domains) allows the school to pinpoint what support a student needs. For instance, reading could be "the big

thing" that a student is struggling with, but the team also considers his current status and recent progress in other areas, math, writing, behavior, or attendance.

The staff seemed very cohesive and focused on similar goals. Communication centered on the students, and the staff shared a common language. The school culture was extremely positive as teachers took responsibility for all students; the teachers reported that the positive school culture remained constant despite some staff turnover. The principal is a very strong leader; she spoke knowledgably about all aspects of the RTI model and the instruction offered within each tier. The rooms were warm and inviting; student work was prominently displayed throughout the school.

School A's model and processes are clearly outlined. A first year teacher commented that the process was very easy to learn. In addition, there is close communication between the ELL and SPED departments. Several members of the RTI team and the teachers commented that they "love" this process and felt that students' needs are being met much more effectively and proactively since School A began implementing RTI.

Next Steps

School A would like to continue improving the math and writing interventions, formalize fidelity checks in this area, and strengthen the assessment piece. The district is beginning to implement CBMs in math at all district elementary schools. School A believes that these measures will improve their ability to target students' needs and address particular skills more effectively and efficiently.

The principal stated that scheduling is "always a work in progress." She is continually looking for ways to minimize pull-outs. In addition, she would like for teachers to become more adept at analyzing data. While DIBELS has been used in School A for many years,

teachers have become more skilled in analyzing and interpreting the data since the implementation of RTI. The principal would like their development to continue.

The principal would also like to shore up the behavior component of School A's RTI model. Teachers currently have the option of implementing their own Behavior Implementation Plan (BIP) for students struggling with behavior. She would like this process to become more formal and to see more teachers feel comfortable at writing and implementing BIPs on their own.

Summary Table

RTI Model	**Tier I**	**Tier II**	**Tier III**	**Screening/ Progress Monitoring**
Reading, Math, Behavior, Writing, and Attendance; grades K-5	Success For All (reading); McGraw-Hill (math)	Typically provided an EA, daily for at least 20 minutes in small groups	Typically provided by as EA, daily for at least 30 minutes on an individualized basis. Extended day programs and Title I services may provide Tier III interventions	Students are screened every 8 weeks; students in Tiers II and III are progress monitored weekly; DIBELS for reading, teacher developed measures for math; state-generated prompts for writing; various measures for behavior

Appendix J.

Demographic Tables for Each Site

Appendix J. Demographic Tables for Each Site

School A (K-5 school in the West) 2006-07

Student population (size) at site	608
Percent of students on free/reduced lunch	56%
Percent of students who are ELL	38%
Percent of students served in Special Education	10%
Percent of students identified as having a Specific Learning Disability	3.8%
Per pupil funding	$8,100
Percentage of students per grade proficient on school screening measure (see Table 5 for screening measures).	K – 88% 1 – 71% 2 – 66% 3 – 91%[1] 4 – 81% 5 – 85%
Reading First School	N
Title I school	Y

[1]School indicated that 3rd grade scores are high because they were the first grade to receive targeted interventions since K.

School B (Grades 5-6 school in the Midwest) 2006-07

Student population (size) at site	529
Percent of students on free/reduced lunch	13%
Percent of students who are ELL	1%
Percent of students served in Special Education	16%
Percent of students identified as having a Specific Learning Disability	5%
Per pupil funding	$9,622
Percentage of students per grade proficient on screening measure	5th Grade Math-

(See Table 5 for screening measures)	67% 5th Grade Read- 82% 6th Grade Math- 78% 6th Grade Read- 87%
Reading First School	N
Title I school	Y

School C (K-4 elementary school in the northeast) 2006-07

Student population (size) at site	500
Percent of students on free/reduced lunch	43.6%
Percent of students who are ELL	1.2%
Percent of students served in Special Education	9.8%
Percent of students identified as having a Specific Learning Disability	3.2%
Per pupil funding	$12,596.08
Percentage of students at low risk on measures at the middle of the school year 2006 – 2007 (See Table 5 for screening measures)	K – LNF – 68% PSF – 76% NWF – 45% ISF – 45% 1 – PSF – 96% NWF – 41% ORF – 41% 2 – ORF – 53% 3 – ORF 45% 4 – ORF 47%
Reading First School	N

Title I school	Y (targeted assistance)

Note: LNF = Letter Naming Fluency, PSF = Phoneme Segmentation Fluency, NWF = Nonsense Word Fluency, ISF = Initial Sound Fluency, ORF = Oral Reading Fluency.

School D (K-5 school in the Southeast) 2006-07

Student population (size) at site	480
Percent of students on free/reduced lunch	56.0%
Percent of students who are ELL	2.5%
Percent of students served in Special Education	13.5%
Percent of students identified as having a Specific Learning Disability	7.1%
Per pupil funding	$6,000
Percentage of students per grade proficient on screening measure (See Table 5 for screening measures)	K: 45% 1: 71%
Reading First School	N
Title I school	N

School E (Grades 6-8 middle school in the West) 2005-06

Student population (size) at site	870
Percent of students on free/reduced lunch	50
Percent of students who are ELL	22
Percent of students served in Special Education	11
Percent of students identified as having a Specific Learning Disability	3
Per pupil funding	$5,277.30
Percentage of students per grade proficient on state measure (CST English/Language Arts)[2]	6th 50% 7th 57% 8th 50%
Is this a Reading First School?	N
Is this a Title I school?	Y

[2]CST = California State Test; the percentage of students who were below or far below basic was 16% for 6th grade, 17% for 7th grade, and 16% for 7th grade.

Appendix K.

Individual Problem Solving Worksheet

INDIVIDUAL PROBLEM SOLVING WORKSHEET

File Review and Problem Identification

Date:	School:	Grade:	Teacher:	Current Services:
Student Name:	Case Manager:		Team Members:	

ATTENDANCE REVIEW
(based on an average of 171 school days per year)

Grade	K	1	2	3	4	5	6	7	8	9	10	11	12
School Year													
School Attended													
Days Total	171	342	513	684	855	1026	1197	1368	1539	1710	1881	2052	2223
Student's Attendance per Year													
Student Total for all Years													

Grand Total of Days of School Attended: _____ Divide by 171: _____. Years + Months of Actual Attendance: _____

Review of report cards, progress reports, and teacher remarks by grade level significant for:

Reading achievement:
Math achievement:
Behavior (including attending skills):
Language skills: Significant difficulty (2's or less on report card) in writing, speaking skills, organization, social skills, following directions, or difficulty across subject areas requiring comprehension that can not be explained by other factors.
Hearing Screening Results:
English Language Development:
Other:

INDIVIDUAL PROBLEM SOLVING WORKSHEET – CONTINUED

STUDENT: _____ DATE: _____

ACHIEVEMENT REVIEW – READING

Grade	K	1	2	3	4
BENCHMARKS	PSF: 35 NWF: 25	NWF: 50 (Winter) ORF: 40-60	ORF: 90	ORF: 110 OAKS: 204	ORF: 118 OAKS: 211
EXPECTED GAINS	N/A	ORF: 1.9 Words per Week	ORF: 1.2 Words per Week	ORF: 1.1 Words per Week	ORF: .9 Words per Week OAKS: 7 points
STUDENT SCORE	PSF: NWF:	ORF:	ORF:	ORF: OAKS:	ORF: OAKS:

Grade	5	6	7	8	10
BENCHMARKS	ORF: 124 OAKS: 218	ORF: 125 OAKS: 222	OAKS: 227	OAKS: 231	OAKS: 236
EXPECTED GAINS	ORF: .9 Words per Week OAKS: 7 points	ORF: .7 Words per Week OAKS: 5 points	OAKS: 6 points	OAKS: 5 points	OAKS: 8 points
STUDENT SCORE	ORF: OAKS: %ilea:	ORF: OAKS: %ilea:	OAKS: %ilea:	OAKS: %ilea:	OAKS: %ilea:

Other information: Summary of teacher concerns, referral questions, etc.

ACHIEVEMENT REVIEW – ELL LANGUAGE

Grade	K	1	2	3	4	5	6	7	8	9	10
ELPA benchmarks											
Early Intermediate level 2	483	492	495	501	497	497	497	497	499	491	493
Intermediate Level 3	492	507	508	514	508	508	506	507	508	501	501
Early Advanced Level 4	498	514	514	521	514	516	515	517	518	515	516
Advanced Level 5- EXIT	507	523	523	529	521	523	522	524	526	526	527
TOTAL Student Score	T ___	T ___	T ___	T ___	T ___	T ___	T ___	T ___	T ___	T ___	T ___
Reading	R ___	R ___	R ___	R ___	R ___	R ___	R ___	R ___	R ___	R ___	R ___
Writing	W___	W___	W___	W___	W___	W___	W___	W___	W___	W___	W___
Listening	L ___	L ___	L ___	L ___	L ___	L ___	L ___	L ___	L ___	L ___	L ___
Speaking	S ___	S ___	S ___	S ___	S ___	S ___	S ___	S ___	S ___	S ___	S ___

Comprehension	C ___	C ___	C ___	C ___	C ___	C ___	C ___	C ___	C ___	C ___	C ___

INDIVIDUAL PROBLEM SOLVING WORKSHEET - CONTINUED

STUDENT: _____ DATE: _____

ACHIEVEMENT REVIEW - MATH MULTIPLE CHOICE

Grade	3	4	5	6	7	8	10
BENCHMARKS	OAKS: 205	OAKS: 212	OAKS: 218	OAKS: 221	OAKS: 226	OAKS: 230	OAKS: 236
EXPECTED GAINS	N/A	OAKS: 6 points	OAKS: 7 points	OAKS: 5 points	OAKS: 6 points	OAKS: 5 points	OAKS: 8 points
STUDENT SCORE	OAKS: %ilea	OAKS: %ilea	OAKS: %ilea	OAKS: %ilea	OAKS: %ilea	OAKS: %ilea	OAKS: %ilea

Other information: Summary of teacher concerns, referral questions, etc.

ACHIEVEMENT REVIEW - WRITING

	Grade 4	Grade 7	Grade 10
COMPOSITE BENCHMARK	32 to 39 (28 to 31 may conditionally meet. The district may declare the student met if all work sample requirements are met) Minimum of 3 in each trait.	40 to 49 (35 to 39 may conditionally meet. The district may declare the student met if all work sample requirements are met) Minimum of 3 in each trait.	40 to 49 (35 to 39 may conditionally meet. The district may declare the student met if all work sample requirements are met) Minimum of 3 in each trait.
STUDENT SCORE (Note areas of concern by traits)			

INDIVIDUAL PROBLEM SOLVING WORKSHEET – CONTINUED
STUDENT: _____ DATE: _____

HYPOTHESIS DEVELOPMENT

Summarizing evidence above, address questions below:

1. Does evidence support that the student's problems may be primarily due to problems with attention, motivation, or other behavioral difficulty? Include data along with progress monitoring of behavioral supports.

2. Does evidence support that the student's problems may be primarily due to attendance problems, or frequent school interruptions? If so, indicate reasons for absences and interruptions. What interventions have been put in place to address this issue"

3. Does evidence support that the student's problems may be primarily due to other concerns like trauma, economic or cultural disadvantage, or other disabilities? Describe. Be sure to note *when* these issues occurred and their correlations with any academic concerns. What will be done to help the student be more successful?

4. Does the evidence support that the child's difficulties may be the result of language difficulties in areas such as language processing, social language, or articulation? Indicate next steps.

5. Does the evidence support the hypothesis that the difficulty is due to limited English proficiency? Indicate next steps.
6. Does the evidence suggest that the student has low skills and slow progress despite intensive interventions?

Appendix L.

Example of Procedure Fidelity Checklist.

Appendix L. Example of a Procedure Fidelity Checklist.

School Name

RTI Procedure Fidelity Checklist

Student:_____ Teacher:_____

Please include all relevant documentation in folder.
Date(s):

_____Fidelity of screening assessment administration is assessed (school-wide).
_____Fidelity of progress monitoring administration is assessed (school-wide)
_____ Screening assessment administered.
Score(s): _____ Cutpoint:_____
_____RTI Leadership team meets and assigns student to Tier II intervention
Name of intervention:_____
Intervention provider:_____
_____Letter to parent informing the enrollment of student in Tier II intervention (Copy)
_____Tier II administration begun
_____Student scores 3 scores below aimline (copy of graph)
_____Fidelity of Tier II intervention delivery assessed
_____Tier II administration ends
_____RTI Leadership Team meets and assigns student to Tier III intervention
Name of intervention:_____
Intervention provider:_____
Instruction is intensified by (circle one or more) decreasing group size, increasing frequency, increasing duration, changing curriculum used
_____Letter to parent informing the enrollment of student in Tier III intervention (Copy)
_____Tier III administration begun
_____Student scores 3 scores below aimline (copy of graph)
_____Fidelity of Tier III intervention delivery assessed
_____Tier III administration ends
_____RTI Leadership Team meets and assigns student to second Tier III intervention
Name of intervention:_____
Intervention provider:_____
_____Letter to parent informing the enrollment of student in second Tier III intervention (Copy)
_____Second Tier III administration begun

_____Student scores 3 scores below aimline (copy of graph)
_____Fidelity of second Tier III intervention delivery assessed
_____Second Tier III administration ends
_____Student is referred to Child Study Team for special education determination
_____ Parent permission obtained for evaluation for special education consideration (Copy)

a. Start of 60 day rule
b. Parent safeguards provided
c. Specific time lines developed

Bibliography

Baer, D. M., Wolf, M. M., & Risley, T. R. (1987). Some still-current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 20*, 313-327.

Bateman, B. (1965). An educational view of a diagnostic approach to learning disorders. In J. Hellemuth (Ed.), *Learning Disorders* (Vol. 1, pp. 219-239). Seattle, WA: Special Child Populations.

Batsche, G., Elliott, J., Graden, J. L., Grimes, J., Kovaleski, J. F., Prasse, D., et al. (2006). *Response to intervention: Policy considerations and implementation.* National Association of State Directors of Special Education, Inc. Alexandria, VA: Author.

Batsche, G. M., Kavale, K. A., & Kovaleski, J. F. (2006). Competing views: A dialogue on response to intervention. *Assessment for Effective Instruction, 32*(1), 6-19.

Bergan, J. R. (1977). *Behavioral consultation*. Columbus, OH: Charles E. Merrill.

Bradley, R., Danielson, L., & Hallahan, D. P. (Eds.) (2002). *Identification of learning disabilities: Research to practice.* Mahwah, NJ: Lawrence Erlbaum Associates.

Burns, M., Appleton, J. J., & Stehouwer, J. D. (2005). Meta-analytic review of responsiveness-to-intervention research: Examining field-based and research-implemented models. *Journal of Psychoeducational Assessment, 23,* 381-394.

Burns, M. K., & Ysseldyke, J. E. (2005). Comparison of existing responsiveness-to-intervention models to identify and answer implementation questions. *The California School Psychologist, 10*, 9-20.

Christ, T. J., Burns, M. K., & Ysseldyke, J. E. (2005). Conceptual confusion within response-to-intervention vernacular: Clarifying meaningful differences.

Communiqué, 34(3).

Coutinho, M. (1995). Who will be learning disabled after the reauthorization of IDEA? Two very distinct perspectives. *Journal of Learning Disabilities, 28*, 664-668.

Datnow, A. (2005). The sustainability of comprehensive school reform models in changing district and state contexts. *Educational Administration Quarterly, 41*(1), 121-153.

Davis, G. N., Lindo, E. J., & Compton, D. L. (2007). Children at risk for reading failure: Constructing an early screening measure. *TEACHING Exceptional Children, 39*(5), 32-37.

Deno, S. (1985). Curriculum-based measurement: The emerging alternative. *Exceptional Children, 52*, 219-232.

Donovan, M. S., & Cross, C. T. (2002). *Minority students in special and gifted education.* Washington, DC: National Academy Press.

Edmonds, M. S., & Briggs, K. L. (2003). The instructional content emphasis instrument: Observations of reading instruction. In S. R. Vaughn & K. L. Briggs (Eds.), *Reading in the Classroom: Systems for the Observation of Teaching & Learning.* (pp. 31-52). Baltimore: Brookes.

Ervin, R. A., Schaughency, E., Matthews, A., Goodman, S. D., & McGlinchey, M. T. (2007). Primary and secondary prevention of behavior difficulties: developing a data-informed problem-solving model to guide decision making at a school-wide level. *Psychology in the Schools, 44*(1), 7 -18.

Fletcher, J. M., Francis, D., Shaywitz, S., Lyon, G. R., Foorman, B., Stuebing, K., & Shaywitz, B. A. (1998). Intelligent testing and the discrepancy model for children

with learning disabilities. *Learning Disabilities Research & Practice, 13,* 186-203.

Fletcher, J. M., Morris, R. D., & Lyon, G. R. (2003). Classification and definition of learning disabilities: An integrative perspective. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of Learning Disabilities* (pp. 30-56). New York: Guilford Press

Foorman, B. (2007). Primary prevention in classroom reading instruction. *TEACHING Exceptional Children, 39*(5), 24-30.

Foorman, B., Francis, D. J., Fletcher, J. M., Schatschneider, C., & Mehta, P. (1998). The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology, 90, 37*-55.

Fuchs, D., & Deshler, D. D. (2007). What we need to know about responsiveness to intervention (and shouldn't be afraid to ask). *Learning Disabilities Research & Practice, 22*(2), 129-136.

Fuchs, D. & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly, 41*(1), 93-99.

Fuchs, D., Fuchs, L. S., Compton, D. L. (2004). Identifying reading disability by responsiveness-to-instruction: Specifying measures and criteria. *Learning Disability Quarterly, 27*(4), 216-277.

Fuchs, D., Mock, D., Morgan, P. L., & Young, C. L. (2003). Responsiveness-to-intervention: Definitions, evidence, and implications for the learning disabilities construct. *Learning Disabilities Research and Practice, 18*, 157-171.

Fuchs, L. S., & Fuchs, D. (1998). Treatment validity: A unifying construct for reconceptualizing the identification of learning disabilities. *Learning Disabilities Research & Practice, 13*(4), 204-219.

Fuchs, L. S., & Fuchs, D. (2007). A model for implementing responsiveness to intervention. *TEACHING Exceptional Children, 39*(5), 14-20.

Fuchs, L. S., Fuchs, D., Compton, D. L., Bryant, J. D., Hamlett, C. L., & Seethaler, P. M. (2007). Mathematics screening and progress monitoring at first grade: Implications for responsiveness to intervention. *Exceptional Children, 73,* 311-330.

Good, R. H., Simmons, D. C., & Kame'enui, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high-stakes outcomes. *Scientific Studies of Reading, 5,* 257-288.

Gresham, F. M. (2002). Responsiveness to intervention: An alternative approach to the identification of learning disabilities. In R. Bradley, L. Danielson, & D. P. Hallahan (Eds.), *Identification of learning disabilities: Research to practice* (pp. 467-519). Mahwah, NJ: Lawrence Erlbaum Associates.

Gresham, F. M., MacMillan, D. L., & Beebe-Frankenberger, M. E. (2000). Treatment integrity in learning disabilities intervention research: Do we really know how treatments are implemented? *Learning Disabilities: Research & Practice, 15*(4), 198-205.

Griffiths, A. J., Parsons, L. B., Burns, M. K., VanDerHeyden, A., & Tilly, W. D. (2007). *Response to intervention: Research for Practice.* National Association of State

Directors of Special Education, Inc. Alexandria, VA: Author.

Hale, J. B., Kaufman, A., Naglieri, J. A., & Kavale, K. A. (2006). Implementation of IDEA: Integrating response to intervention and cognitive assessment methods. *Psychology in Schools, 43*(7), 753-770.

Hallahan, D. P., & Mock, D. R. (2003). A brief history of the field of learning disabilities. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of Learning Disabilities* (pp. 16-29). New York: Guilford Press.

Hammill, D. D. (1990). On defining learning disabilities: An emerging consensus. *Journal of Learning Disabilities, 23*, 74-84.

Heller, K. A., Holtzman, W. H., Messick, S. (1982). *Placing children in special education: A strategy for equity.* Washington, DC: National Academy Press.

Holcombe, A., Wolery, M., & Synder, E. (1994). Effects of two levels of procedural fidelity with constant time delay on children's learning. *Journal of Behavioral Education, 4*, 49-73.

Ikeda, M. J., Rahn-Blakeslee, A., Niebling, B. C., Gustafson, J. K., Allison, R., & Stumme, J. (2007). The Heartland Area Education Agency 11 problem-solving approach: an overview and lessons learned. In S. R. Jimerson, M. K. Burns, & A. M. VanDerHeyden (Eds.), *Handbook of response to intervention: The science and practice of assessment and intervention* (pp. 255-268). New York: Springer.

Ikeda, M. J., Tilly, W. D., Stumme, J., Volmer, L., & Allison, R. (1996). Agency-wide implementation of problem-solving consultation: Foundation, current implementation, and future directions. *School Psychology Quarterly, 11*, 228-243.

Individual with Disabilities Education Improvement Act, 2004. Downloaded on

September 30, 2007 from http://idea.ed.gov/download/statute.html.

Jencks, C., & Phillips, M (eds.). (1998). *The black-white test score gap*. Washington, DC: Brookings Institution Press.

Jimerson, S. R., Burns, M. K., & VanDerHeyden, A. M. (2007). Response to intervention at school: The science and practice of assessment and intervention. In Jimerson, S. R., Burns, M. K., & VanDerHeyden, A. M. (Eds.), *Handbook of response to intervention: The science and practice of assessment and intervention.* P. 3-9. New York: Springer Science+Business Media.

Johnson, E., Mellard, D. F., Fuchs, D., & McKnight, M. A. (2006). *Responsiveness to intervention (RTI): How to do it.* Lawrence, KS: National Research Center on Learning Disabilities.

Kavale, K. A., Holdnack, J. A., & Mostert, M. P. (2005). Responsiveness to intervention and the identification of specific learning disabilities: A critique and alternative proposal. *Learning Disability Quarterly, 28*, 2-16..

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage Publications.

Macmann, G. M., Barnett, D. W., Lombard, T. J., Belton-Kocher, E., & Sharpe, M. N. (1989). On the actuarial classification of children: Fundamental studies of classification agreement. *The Journal of Special Education, 23,* 127-149.

MacMillian, D. L., Gresham, F. M., & Bocian, K. M. (1998). Discrepancy between definitions of learning disabilities and school practices: An empirical investigation. *Journal of Learning Disabilities, 31,* 314-326.

Marston, D., Lau, M., & Muyskens, P. (2007). Implementation of the problem-solving

model in the Minneapolis public schools. In S. R. Jimerson, M. K. Burns, & A. M. VanDerHeyden (Eds.), *Handbook of response to intervention: The science and practice of assessment and intervention* (pp. 279-287). New York: Springer.

Marston, D., Muyskens, P., Lau, M. & Canter, A. (2003). Problem-solving model for decision-making with high-incidence disabilities: The Minneapolis experience. *Learning Disabilities Research & Practice, 18*(3), 187-200.

Mathes, P.G., Denton, C.A., Fletcher, J.M., Anthony, J.L., Francis, D.J., & Schatschneider, C. (2005). The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly, 40*(2), 148–182.

McIntosh, A. S., Graves, A., & Gersten, R. (2007). The effects of response to intervention on literacy development in multiple-language settings. *Learning Disability Quarterly, 30*, 197-212.

Mellard, D. (2004). *Understanding responsiveness to intervention in learning disabilities determination.* Lawrence, KS: National Research Center on Learning Disabilities.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.

National Association of State Directors of Special Education (2007). *Response to intervention: Key terms and acronyms*. Alexandria, VA: Author.

National Joint Committee on Learning Disabilities. (June, 2005) Responsiveness to intervention and learning disabilities. Retrieved on December 21, 2008 from www.ldonline.org/njcld

National Reading Panel (2000). *Teaching children to read: An evidence-based*

assessment of the scientific research literature on reading and its implications for reading instruction. Washington, DC: National Academy Press.

Noell, G. H., & Gansle, K. A. (2006). Assuring the form has substance: Treatment plan implementation as the foundation of assessing response to intervention. *Assessment for Effective Intervention, 32*(1), 32-39.

Noell, G. H., Gresham, F., M., & Gansle, K. A. (2002). Does treatment integrity matter? A preliminary investigation of instructional implementation and mathematics performance. *Journal of Behavioral Education, 11*, 51-67.

O'Connor, R. E., Fulmer, D., & Harty, K. R. (2005). Layers of reading intervention in kindergarten through third grade: Changes in teaching and student outcomes. *Journal of Learning Disabilities, 38*(5), 440-455.

Peterson, D. W., Prasse, D. P., Shinn, M. R., & Swerdlick, M. E. (2007). The Illinois flexible service delivery model: A problem-solving model initiative. In S. R. Jimerson, M. K. Burns, & A. M. VanDerHeyden (Eds.), *Handbook of response to intervention: The science and practice of assessment and intervention* (pp. 300-318). New York: Springer.

Rahn-Blakesee, A. R., Ikeda, M. J., & Gustafson, J. (2005). Evaluating the quality and responsiveness of reading interventions developed through problem solving. *Journal of Psychoeducational Assessments, 23*, 395-412.

Roberts, G. (2007). *Response to intervention: Best approaches and initial experiences*. In Hot Topics in K-12 Education. Washington D.C.: Thompson, Publishing.

Scammacca, N., Roberts, G., Vaughn. S., Edmonds, M., Wexler, J., Reutebuch, C. K., & Torgesen, J. K. (2007), *Interventions for adolescent struggling readers: A meta-*

analysis with implications for practice. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Scruggs, T. E., & Mastropieri, M. A. (2002). On babies and bathwater: Addressing the problems of identification of learning disabilities. *Learning Disability Quarterly, 25*(3), 155-168.

Scruggs, T. E., & Mastropieri, M. A. (2006). Response to "Competing views: A dialogue on response to intervention". *Assessment for Effective Instruction, 32*(1), 62-64.

Shepard, L. A., Smith, M. L., & Vojir, C. P. (1983). Characteristics of pupils identified as learning disabled. *American Educational Research Journal, 20*, 309-322.

Snow, C., Burns, S., & Griffin, M. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Research Council, National Academy of Sciences.

Stecker, P. M. (2007). Tertiary intervention: Using progress monitoring with intensive services. *TEACHING Exceptional Children, 39*(5), 50-57.

Torgesen, J. K., Alexander, A., Wagner, R., Rashotte, C., Voeller, K., & Conway, T. (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities, 34*, 33-58.

U.S. Department of Education Office of Special Education and Rehabilitative Services (2002). *A new era: Revitalizing special education for children and their families,* Washington, DC: Author.

VanDerHeyden, A. M., Witt, J. C., & Gilbertson, D. (2007). A multi-year evaluation of the effects of a response to intervention (RTI) model on identification of children

for special education. *Journal of School Psychology, 45*(2), 225-256.

Vaughn, S., & Fuchs, L. S. (2003). Redefining learning disabilities as inadequate response to instruction: The promise and potential pitfalls. *Learning Disabilities Research & Practice, 18*(3), 137-146.

Vaughn, S., & Fuchs, L. S. (2006). Response to "Competing views: A dialogue on response to intervention". *Assessment for Effective Instruction, 32*(1), 58-61.

Vaughn, S., Linan-Thompson, S., & Hickman-Davis, P. (2003). Response to treatment as a means of identifying students with reading/learning disabilities. *Exceptional Children, 69*(4), 391-409.

Vaughn, S., Linan-Thompson, S., Woodruff, A. L., Murray, C. S., Wanzek, J., Scammacca, N., et al. (2008). Effects of professional development on improving at-risk students' performance in reading. In C. R. Greenwood, T. R. Kratochwill & M. Clements (Eds.), *Elementary schoolwide prevention models: Lessons learned from real schools.* New York: Guilford Press.

Vaughn, S., Wanzek, J., & Fletcher, J.M. (2007). Multiple tiers of intervention: A framework for prevention and identification of students with reading/learning disabilities (173-196): In B.M. Taylor and J. Ysseldyke (Eds.), *Educational Interventions for Struggling Readers*. New York: Teacher's College Press.

Vellutino, F. R., & Scanlon, D. M. (2006). Response to intervention as a vehicle for distinguishing between children with and without reading disabilities: Evidence for the role of kindergarten and first-grade interventions. *Journal of Learning Disabilities, 39*(2), 157-169.

Vellutino, F. R., Scanlon, D. M., Sipay, E. R., Small, S., Chen, R., Pratt, A., & Denckla,

M. B. (1996). Cognitive profiles of difficult-to-remediate and readily remediated poor readers: Early intervention as a vehicle for distinguishing between cognitive and experiential deficits as basic causes of specific reading disability. *Journal of Educational Psychology, 88*, 601-638.

Vellutino, F. R., Scanlon, D. M., & Tanzman, M. S. (1998). The case for early intervention in diagnosing specific reading disability. *Journal of School Psychology, 36,* 267-397.

Woodcock, R. W., McGrew, K. S., & Mather, N. (2001). *Woodcock-Johnson III Tests of Cognitive Abilities.* Itasca, IL: Riverside.

Yin, R. K. (2003). *Case study research: Design and methods* (2nd ed., Applied Social Research Methods Series, Vol. 5). Thousand Oaks, CA: Sage Publications.

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